

# PUBLIC HEALTH REPORTS

VOL. 35

DECEMBER 24, 1920

No. 52

## SUPREME COURT OF THE UNITED STATES CONSTRUES SECTION 2 OF THE HARRISON ANTINARCOTIC ACT.

The Supreme Court of the United States has decided that the issuance of a prescription for a habit-forming drug by a physician not "in the course of his professional practice only" is a sale of the drug and a violation of section 2 of the Harrison Antinarcotic Act. The prescriptions were issued by the defendant, a physician, to persons who were not his patients and not previously known to him and who were professed drug addicts. The opinion, which was delivered by Mr. Justice Pitney, is as follows:

Plaintiff in error was indicted and convicted for violating section 2 of an act of Congress approved December 17, 1914, commonly known as the Harrison Antinarcotic Act (38 Stat., 785, Ch. 1).<sup>1</sup> His motion in arrest of judgment having been overruled (253 Fed. Rep., 213),<sup>2</sup> he brought the case here by direct writ of error under section 238, Judicial Code, upon the ground of the unconstitutionality of the act. Afterwards this question was set at rest by our decision in *United States v. Doremus*,<sup>3</sup> 249 U. S., 86, sustaining the act; but our jurisdiction continues for the purpose of disposing of other questions raised in the record. *Brolan v. United States*, 236 U. S., 216; *Pierce v. United States*, 252 U. S., 239.

These questions relate to the sufficiency of the indictment, the adequacy of the evidence to warrant a conviction, the admissibility of certain evidence offered by defendant and rejected by the trial court, and the instructions given and refused to be given to the jury.

<sup>1</sup> SEC. 2. That it shall be unlawful for any person to sell, barter, exchange, or give away any of the aforesaid drugs except in pursuance of a written order of the person to whom such article is sold, bartered, exchanged, or given, on a form to be issued in blank for that purpose by the Commissioner of Internal Revenue. \* \* \* Nothing contained in this section shall apply—

(a) To the dispensing or distribution of any of the aforesaid drugs to a patient by a physician, dentist, or veterinary surgeon registered under this act in the course of his professional practice only: *Provided*, That such physician, dentist, or veterinary surgeon shall keep a record of all such drugs dispensed or distributed, showing the amount dispensed or distributed, the date, and the name and address of the patient to whom such drugs are dispensed or distributed, except such as may be dispensed or distributed to a patient upon whom such physician, dentist, or veterinary surgeon shall personally attend; \* \* \*

(b) To the sale, dispensing, or distribution of any of the aforesaid drugs by a dealer to a consumer under and in pursuance of a written prescription issued by a physician, dentist, or veterinary surgeon registered under this act: \* \* \*

<sup>2</sup> Public Health Repts., Apr. 4, 1919, p. 688.

<sup>3</sup> Public Health Repts., May 30, 1919, p. 1195.

The indictment contained 20 counts, differing only in matters of detail. Defendant was convicted upon 8 counts, acquitted upon the others. Each count averred that on a date specified, at Pittsburgh, in the county of Allegheny, in the western district of Pennsylvania, and within the jurisdiction of the court, defendant was a practicing physician, and did unlawfully, willfully, knowingly, and feloniously sell, barter, exchange, and give away certain derivatives and salts of opium, to wit, a specified quantity of morphine sulphate, to a person named, not in pursuance of a written order from such person on a form issued in blank for that purpose by the Commissioner of Internal Revenue under the provisions of section 2 of the act, "in manner following, to wit, that the said Jin Fuey Moy, at the time and place aforesaid, did issue and dispense" to the person named, a certain prescription of which a copy was set forth, and that said person "was not then and there a patient of the said Jin Fuey Moy, and the said morphine sulphate was dispensed and distributed by the said Jin Fuey Moy not in the course of his professional practice only; contrary to the form of the act of Congress," etc.

It is objected that the act of selling or giving away a drug and the act of issuing a prescription are so essentially different that to allege that defendant sold the drug by issuing a prescription for it amounts to a contradiction of terms, and the repugnance renders the indictment fatally defective. The Government suggests that the clause as to issuing the prescription may be rejected as surplusage; but we are inclined to think it enters so intimately into the description of the offense intended to be charged that it can not be eliminated, and that unless defendant could "sell," in a criminal sense, by issuing a prescription, the indictment is bad. If "selling" must be confined to a parting with one's own property there might be difficulty. But by section 332 of the Criminal Code, "Whoever directly commits any act constituting an offense defined in any law of the United States, or aids, abets, counsels, commands, induces, or procures its commission is a principal." Taking this, together with the clauses quoted from section 2 of the antinarcotic act, it is easy to see, and the evidence in this case demonstrates, that one may take a principal part in a prohibited sale of an opium derivative belonging to another person by unlawfully issuing a prescription to the would-be purchaser. Hence there is no necessary repugnance between prescribing and selling, and the indictment must be sustained.

The evidence shows that defendant was a practicing physician in Pittsburgh, registered under the act so as to be allowed to dispense or distribute opium and its derivatives without a written order in official form, "in the course of his professional practice only"; that he was in the habit of issuing prescriptions for morphine sulphate without such written order and not in the ordinary course of professional practice; that he issued them to persons not his patients and not previously known to him, professed morphine users, for the mere purpose, as the jury might find, of enabling such persons to continue the use of the drug, or to sell it to others; in some cases he made a superficial physical examination, in others none at all; his prescriptions called for large quantities of morphine—8 to 16 drams at a time—to be used "as directed," while the directions left the recipient free to use the drug virtually as he pleased. His charges were not according to the usual practice of medical men, but according to the amount

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of the drug prescribed, being invariably \$1 per dram. All the prescriptions were filled at a single drug store in Pittsburgh, the recipients being sent there by defendant for the purpose; and persons inquiring at that drug store for morphine were sent to defendant for a prescription. The circumstances strongly tended to show cooperation between defendant and the proprietors of the drug store. At and about the dates specified in the indictment—the spring of the year 1917—and for more than two years before, the number of prescriptions issued by defendant and filled at this drug store ran into the hundreds each month, all calling for morphine sulphate or morphine tablets in large quantities. In one case a witness who had procured from defendant two prescriptions—one in his own name for 10 drams, the other in the name of a fictitious wife for 6 drams—and had been directed by defendant to the specified drug store in order to have them filled, asked defendant to confirm the prescriptions by telephone so there would be no trouble; to which defendant replied: "Oh, never mind; we do business together; we understand each other." On another occasion the same witness, having received from defendant two prescriptions for 8 drams each, one in his own name, the other in the name of the supposed wife, stating in one case a Cleveland address, in the other a Pittsburgh address, presented them at the drug store to be filled, and was told by the manager that he would not fill any more prescriptions under a Pittsburgh address; "they were taking too big a chance, and I must go back to the Chinaman and tell him what he told me, and he would understand—the Chinaman would understand." Witness returned the two prescriptions to defendant, told him what the manager had said, and defendant retained those prescriptions and issued to the witness a new one for 16 drams in place of them, with which the witness returned to the drug store and procured the specified quantity of the drug.

In each case where defendant was found guilty the evidence fully warranted the jury in finding that he aided, abetted, and procured a sale of morphine sulphate without written order upon a blank form issued by the Commissioner of Internal Revenue; and that he did this by means of a prescription issued not to a patient and not in the course of his professional practice, contrary to the prohibition of section 2 of the act. Manifestly the phrases "to a patient" and "in the course of his professional practice only" are intended to confine the immunity of a registered physician, in dispensing the narcotic drugs mentioned in the act, strictly within the appropriate bounds of a physician's professional practice, and not to extend it to include a sale to a dealer or a distribution intended to cater to the appetite or satisfy the craving of one addicted to the use of the drug. A "prescription" issued for either of the latter purposes protects neither the physician who issues it nor the dealer who knowingly accepts and fills it. *Webb v. United States*,<sup>4</sup> 249 U. S., 96.

Errors assigned to the instructions given and refused to be given by the trial judge to the jury are disposed of by what we have said. \* \* \*

The judgment under review is affirmed.

**PUBLIC HEALTH ENGINEERING ABSTRACTS.**

**Water-supply statistics of metered cities.**—*American City*, vol. 23, No. 6, December, 1920, p. 613-620.

Water-supply statistics from over 1,000 cities in the United States or Canada having at least 1 per cent of their services metered are tabulated to show population, ownership of waterworks, source of supply, number having filtration plants, number using sterilization, average daily and per capita consumption, number having meters at pumps, number of services, per cent services metered, meter rates per 1,000 gallons for domestic and commercial uses, and minimum annual charge.

**Water-supply problems in Roumania.**—George C. Whipple, professor of sanitary engineering, Harvard University. *American City*, vol. 23, No. 6, December, 1920, p. 580-582.

In Roumania the water supplies vary from the most primitive wells of olden times to modern, well-constructed public works. Rural conditions prevail generally. In most of the villages water is obtained from one or more community wells, which in many cases have substantial well curbs of masonry or concrete, usually round and covered with a roof. Water is drawn up in a bucket operated by a windlass, but well sweeps and other devices are also used.

The cities and towns obtain their water supplies from ground waters, in a few instances from mountain supplies, and in others from the Danube River. The river supplies are filtered. Before the war ozone disinfecting apparatus was used in connection with filtration. Of the plains about 30 cities and towns with populations in excess of 2,500, and in the case of 10, over 10,000, have no public water supplies.

Bucharest, the capital of Roumania, has three sources of supply, a filtered river water, and two well-water supplies, with a total maximum daily consumption of 25,000,000 gallons. The hardness of the river water is 40 p. p. m., of the well waters, 120 p. p. m.

At present, lack of facilities for making even minor waterworks repairs results in lack of service. Due to lack of adequate water-supply systems, the country is open to the menace of cholera and other water-borne diseases. In the past cholera has not been prevalent in Roumania, but the typhoid rates in many places have been quite high.

**A study of Massachusetts water supplies and the typhoid rate.**—H. W. Clark, chief chemist, Massachusetts Department of Public Health. *Journal of New England Water Works Association*, September, 1920.

Preference is stated for a water that is pure rather than an impure water purified. Mr. Clark recounts the great reduction in the typhoid

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fever rate in Massachusetts during the last 35 years, a decrease from 45 per 100,000 to 2.6 per 100,000; the present rate is stated to be the lowest in the country and as low as in England and Wales. Though the introduction and improvement of public water supplies is considered the largest factor in this decrease, other reforms in sanitation—such as public sewer systems, increased vigilance over milk and food supplies—are given credit for aiding in the reduction. Unlike in many sections of the country, the public water supplies in Massachusetts, with one exception (Lawrence), do not take their raw water from sources which receive the direct discharge of municipal wastes. The installation of public sewer systems in this State is, therefore, of greatest advantage for removing wastes without contaminating water supply sources. The remaining typhoid fever is considered to be caused by the typhoid carriers in the State.

It is reported that 12 per cent of the population of the State uses filtered water and only seven municipalities have chlorine plants in operation at any time. The Massachusetts policy has been to obtain a water supply for every city or town that can be used for all domestic purposes without any purification treatment other than storage. Almost phenomenal success in accomplishing this is claimed with over a hundred surface supplies in use.

A discussion by G. A. Johnson, Frank Green, M. N. Baker, and others, which followed the presentation of the paper, appeared to claim that insufficient emphasis was given by Massachusetts to the safeguarding of water supplies from protected watersheds by filtration and chlorination. It was the opinion of the first two mentioned, that the fine record of Massachusetts for freedom from water-borne diseases would not be maintained without more consideration being accorded to these secondary and tertiary protective measures.

**New method of applying alum directly to filter beds at Oshkosh, Wis.**—R. A. Maddock, chemist in charge water purification works, Oshkosh, Wis. *Engineering & Contracting*, vol. 54, No. 23, December 8, 1920, p. 553.

The city of Oshkosh obtains its water supply from Lake Winnebago, whose greatest depth is only 28 feet. The resulting turbidity and the suspended matter contained in the water requires careful filtration.

After a series of experiments the writer found the following method of applying alum solution not only saved a large amount of the wash water and alum, but prevented water of an inferior grade from passing into the clear-water basin.

A measured amount of alum solution of known concentration was applied directly to the water in the filter bed, the filter bed having been washed first and the water lowered. The solution was allowed

to stand long enough to form a mat of aluminum hydrate over the sand surface before the filter was again put in operation.

The average amount of alum used by this procedure was 40 pounds per day, a saving of an average of 760 pounds per day over the old method. The saving in money for alum and wash water averaged \$7,000 per year.

## STUDIES IN THE TREATMENT OF MALARIA.

### ABSTRACTS OF THE STUDIES WHICH WERE MADE AT THE REQUEST OF THE BRITISH WAR OFFICE.

By BRUCE MAYNE, Biologist, and MILDRED M. MOSS, Microscopist, United States Public Health Service.

These studies were presented in the papers published in the Annals of Tropical Medicine and Parasitology, June 30, 1917, to March 12, 1919. The patients treated were adult males, infected in Macedonia and East Africa 6 to 12 months previously, and all had more or less quinine during that period. Most of them showed clinical symptoms, though a few were treated during an apyrexial period. All showed parasites on the day of beginning treatment or a few days previously. Parasite examinations were made frequently, often daily, during and after treatment. By relapse is meant parasitic relapse. Febrile relapses occurred in all cases of relapse, sometimes a few days later than the first appearance of parasites in the blood.

In estimating the percentage of relapses an arbitrary observation period of 60 days following cessation of treatment was chosen. Whenever it was not possible to follow cases for this period, two percentages are given, the minimum representing the number of relapses actually observed, the maximum including those cases which were not observed for the full 60-day period and which must be counted as possible relapses.

#### Conclusions Drawn on the Treatment of Malaria.

##### QUININE.

1. Oral administration of quinine sulphate in doses of 10 grains on each of 2 consecutive days causes only temporary cessation of clinical symptoms and disappearance of parasites from peripheral blood in simple tertian malaria, but has no curative effect. If the doses given on each of the two days do not exceed 30 grains, relapses occur within two or three weeks. A curative effect is manifest when the dose given on each of the two days reaches 45 grains and becomes more marked as it is increased to 90 grains. The dose of 90 grains prevents 62 per cent of cases relapsing (53-165 days' observation).

2. Of the various forms of continuous treatment used, that of 45 grains daily for from three to eight weeks is the best, resulting in 36.8-52.6 per cent of relapses, as compared with a minimum of 60-80 per cent of relapses in cases treated with smaller doses (20-30 grains).

3. Of the various forms of interrupted treatment, that of 45 grains of quinine sulphate on two consecutive days weekly, from four to eight weeks, is the best, resulting in 28.6-38.1 per cent of relapses, as compared with a minimum of 41.2 per cent in cases treated with smaller doses.

4. *Comparison of 2 and 3.*—In both 30 and 45 grain doses the palliative results of the interrupted treatment are better than those of the corresponding continuous treatment. (NOTE.—The number of cases under observation was not the same.) Also, 45 grains twice weekly is better than 30 grains twice weekly or than 30 grains daily, both as a palliative and as a curative treatment.

5. Quinine sulphate orally in doses of 120 grains on each of two consecutive days represents the maximum amount of the drug that can be tolerated by the average case.

6. Of 405 cases treated (simple tertian) 43 per cent relapsed during the first 15 days after cessation of treatment, 19.5 per cent during the second 15 day period, 3 per cent during the third, and 1 per cent during the fourth. If a case of simple tertian malaria has not relapsed parasitically within four weeks after cessation of treatment his risk of relapse is only 13 per cent, whereas if he has not relapsed within six weeks his risk of subsequent relapse is reduced to less than 5 per cent.

7. In two series treated with 90 grains of quinine sulphate on each of two consecutive days only, the curative results were 57 to 62 per cent of cures in Series I (76 cases), and 3 to 6 per cent of cures in Series II (89 cases). The quinine solution was identical. Taking into consideration cases from Saloniki only, thus eliminating the strain of parasites as a factor, 65 per cent of Series I were cured and only 3 per cent of Series II. The length of time between first reporting sick and treatment and between arrival in England and treatment were eliminated as factors. In Series I, patients were treated during the period July-September, 1917. In Series II, patients were treated during the period January-April, 1918. After a study of meteorological observations it was seen that the higher the mean daily temperature, the higher the percentage of cures. The conclusion was reached that the season of the year affected the treatment of malaria.

8. *Second comparison of continued and interrupted treatments.*—Given a total weekly dose of quinine as a palliative, it is better to divide it into two equal parts and administer it on each of two consecutive days than to divide it into six equal parts and administer it

on each of six consecutive days. As a palliative, interrupted treatment is preferable to continuous treatment in simple tertian malaria.

9. Under quinine treatment of 30 or 45 grains daily, crescents do not persist in the cutaneous blood in the majority of cases for more than three weeks.

10. An intramuscular injection of 15 grains of quinine bishydrochloride on each of two consecutive days only, exerts in the case of *P. vivax* a constant and rapid effect on both temperature and parasites; in the case of *P. falciparum* the action on temperature and trophozoites is also well defined, though relapses occur more quickly than in the case of *P. vivax*; whereas in the two cases of *P. malariae* treated in the same way there is little if any effect on the parasites, but in one of the two cases the temperature was controlled.

11. At what time after cessation of treatment (quinine) do relapses occur in simple tertian malaria? Eight hundred cases (including cases cited in No. 6) were treated with varying doses of quinine. The time incidence of relapses were tabulated in three ways:

(a) With reference to the relapses themselves, i. e., the percentage of the total relapses which occur during each period of time. The percentages were as follows: 83.2 per cent during the first 20-day period; 13.74 per cent during the second 20-day period; 2.58 per cent during the third 20-day period; 0.17 per cent during the fourth 20-day period; none during the fifth; 0.17 per cent during the sixth; and 0.17 per cent during the seventh.

(b) With reference to the total cases treated, i. e., the percentage of the total cases treated which relapsed during each 20-day period. These were as follows: 60.6 per cent relapsed during the first 20-day period; 10.2 per cent during the second; 2 per cent during the third; 0.2 per cent during the fourth; and none during the fifth.

(c) With reference to remainders, i. e., the incidence among cases treated, less those which had previously relapsed. These were as follows: 60.6 per cent during the first 20-day period; 26.4 per cent during the second; 7.5 per cent during the third; 1.1 per cent during the fourth; and none during the fifth.

#### REMEDIES FOR MALARIA OTHER THAN QUININE.

Intravenous injections of tartar emetic do not cause the disappearance of any stage of malaria parasites from the peripheral blood, either in cases of *P. vivax* or *P. falciparum*. These injections do not control either the rigors or the fever of acute malaria.

Intramuscular injections of amylopsin and trypsin proved to be of no value in the treatment of 10 cases of acute simple tertian malaria.

Single intravenous injections of novarsenobenzol-billon, in doses varying from 0.45 to 0.9 gram, control the febrile paroxysms and

cause the disappearance of parasites from the cutaneous blood, as a rule, within 1 day in simple tertian malaria. Parasitic relapses occur on an average in 21 days. The curative effect in the doses used is practically nil.

Quinotoxin hydrochloride in the doses used, 5 and 10 grains, on each of two consecutive days, has practically no action on the parasites or on the fever, and so is inferior in its action to similar doses of quinine sulphate in simple tertian malaria.

A single intravenous injection of 0.2 gram of disodo-luargol caused a temporary disappearance of parasites from the cutaneous blood and controlled symptoms in simple tertian malaria. A relapse occurred within three weeks. Smaller doses were ineffective.

Collosol manganese in the dose used is of no value in the treatment of simple tertian malaria.

Small doses of arsenic in combination with quinine are not more efficacious as a palliative than the small dose of quinine alone.

Liquor arsenicalis in large doses (30 minims daily for eight weeks) controls febrile relapses, but has less control over parasites. The combination of quinine and arsenic in large doses is superior to arsenic alone. As a curative, large doses of arsenic with quinine gave 12.5 per cent of relapses.

Novarsenobenzol-billon in the doses used (0.45-0.9 gram) is of no value in the treatment of malignant tertian malaria. A combination of arsenic with quinine in the doses used (30 grains quinine and 0.9 gram novarsenobenzol-billon) is not more effective than quinine alone.

The action of novarsenobenzol-billon on *P. vivax* is marked. In this infection its action is even more rapid and efficient than that of quinine, a single intravenous injection causing the disappearance from the cutaneous blood of all stages of the parasites within 24 hours. In the case of *P. falciparum* and *P. malarizæ*, novarsenobenzol-billon in the same dosage has no appreciable effect on temperature or on parasites.

A combination of novarsenobenzol-billon and quinine is more effective in simple tertian malaria than either novarsenobenzol-billon or quinine alone.

The accompanying tables summarize the data presented in these papers:

TABLE I.

Type and number of cases.	Substance and dose.	Length of treatment.	Method of administration.	Toxic effect.	Palliative effect.	Curative effect and relapses.
Simple tertian— 20 cases.	Bilhydrochloride, 15 grains in 2 c. e. of water daily.	On 2 consecutive days.	Intramuscularly.	Slight pain and tenderness.	Cessation of febrile paroxysms within 2 days; disappearance of parasites from peripheral blood.	95 per cent of cases relapsed in 10-18 days.
Simple tertian— 8 cases.	Bilhydrochloride, 15 grains.....	1 day.....	Intravenously.....	.....	Temperature to normal in 1-3 days; disappearance of parasites in 2-5 days.	66 to 100 per cent of relapses in 8-14 days.
Simple tertian— 13 cases.	Bilhydrochloride, 10 grains, 6 injections in 12 cases; 10 grains, 5 injections in 1 case.	10-12 days.....	....., do.....	.....	Temperature to normal after 1-3 injections; disappearance of parasites after 1-4 injections.	93 per cent of relapse in 8-18 days.
Malignant tertian— 7 cases.	Bilhydrochloride, 15 grains, 1 injection in 2 cases; 10 grains, 4-6 injections in 5 cases.	1-13 days.....	....., do.....	.....	Temperature controlled for few days; parasites not eradicated.	No curative effect.
Simple tertian— 38 cases.	Quinine alkohol, 15-30 grains, 1 or 2 injections.	1-2 days.....	Intramuscularly.	Subcutaneous injections resulted in some pain and slight swelling.	Cessation of febrile paroxysms and disappearance of parasites in 1-2 days.	82 per cent of relapses in 60 days.
Simple tertian— 12 cases.	Sulphate, 5 grains daily.....	2 days.....	Orally.....	.....	In 10 cases fever subsided in 1-3 days; 1 case in 8 days; 1 case no effect.	93 per cent of relapses in 60 days.
Simple tertian— 18 cases.	Bilhydrochloride, 5 grains daily.....	On 2 consecutive days.	....., do.....	.....	Temperature to normal in 1-4 days; parasites disappeared in 1-3 days in 17 cases.	100 per cent relapses in 3-15 days.
Simple tertian— 10 cases.	Sulphate, 10 grains daily.....	....., do.....	....., do.....	.....	Temperature to normal in 1-2 days; parasites disappeared in 2-3 days.	100 per cent relapses in 10-18 days.
Simple tertian— 14 cases.	Sulphate, 15 grains daily.....	....., do.....	....., do.....	.....	Temperature to normal in 1-2 days; parasites disappeared in 1-5 days.	100 per cent relapses in 8-22 days.
Do.....	Sulphate, 30 grains daily.....	....., do.....	....., do.....	.....	Temperature to normal in 1-6 days; parasites disappeared in 1-4 days.	100 per cent relapses in 7-20 days.
Simple tertian— 12 cases.	Sulphate, 15 grains daily.....	....., do.....	....., do.....	.....	Temperature to normal in 1-3 days; parasites disappeared in 1-3 days.	88 per cent relapses in 13-25 days.
Do.....	Sulphate, 60 grains daily.....	....., do.....	....., do.....	.....	Temperature to normal in 1-2 days; parasites disappeared in 1-3 days.	58 per cent relapses in 11-27 days.
Simple tertian— 26 cases.	Sulphate, 90 grains daily.....	....., do.....	Orally and intramuscularly.	.....	.....	39 per cent relapses in 14-37 days.
Simple tertian— 5 cases.	Sulphate, 20 grains daily.....	14-15 weeks.	Orally.....	.....	Temperature to normal in 1 day; parasites disappeared in 4 cases in 1-3 days; present at intervals in 1 case.	60-80 per cent relapses in 3-33 days.
Simple tertian— 14 cases.	Sulphate, 30 grains daily.....	5-18 weeks.....	....., do.....	.....	Temperature to normal in 1-2 days; parasites disappeared in 2-5 days.	71 per cent relapses in 3-40 days.

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Simple tertian— 29 cases.	do	8 weeks	Temperature to normal in 1-5 days; parasites disappeared in 1-3 days. Temperature to normal in 1-2 days; parasites disappeared in 1-3 days.
Simple tertian— 19 cases.	sulphate, 45 grains daily	3-8 weeks	Only 7 of 19 cases able to complete 5 weeks' treatment.
Simple tertian— 18 cases.	Sulphate, 10 grains on 2 consecutive days weekly.	8-16 weeks	do
Simple tertian— 14 cases.	Sulphate, 15 grains on 2 consecutive days weekly.	2-11 weeks	do
Simple tertian— 203 cases.	Sulphate, 30 grains on 2 consecutive days weekly.	2-12 weeks	Temperature to normal in 1-5 days; parasites disappeared in 1-3 days. Temperature to normal in 1-3 days; parasites disappeared in 1-4 days. Temperature to normal in 1-4 days; parasites disappeared in 12-24 days.
Simple tertian— 29 cases.	Sulphate, 45 grains on 2 consecutive days weekly.	4-8 weeks	Only 10 cases able to complete treatment; death less, still in ess., collapse, not lasting more than 1 week.
Simple tertian— 15 cases.	Sulphate, 120 grains on 2 consecutive days weekly.	2 days	Temperature to normal in 1-2 days; parasites disappeared in 1-3 days.
Simple tertian— 24 cases.	Sulphate, 90 grains daily	On 2 consecutive days; weekly 3 weeks.	40-50 per cent relapses in 3-57 days.
Simple tertian— 80 cases.	do	On 2 consecutive days; 12 days.	Temperature to normal in 1-3 days; parasites disappeared in 1-5 days.
Simple tertian— 30 cases.	Bilhydrochloride, 30 grains intramuscu- larly; 30 grains orally.	8 weeks	94 per cent relapses in 12-53 days.
Simple tertian— 17 cases.	Sulphate, 5 grains daily 6 days in week.	Orally	87 per cent relapses in 8-6 days.
Simple tertian— 65 cases.	Sulphate, 15 grains on each of 2 consec- utive days weekly.	do	81-83 per cent relapses in 60 days.
Simple tertian— 49 cases.	Sulphate, 15 grains daily 6 days in week.	do	Temperature to normal in 1-5 days; parasites disappeared in 1-3 days.
Simple tertian— 74 cases.	Sulphate, 45 grains on each of 2 consec- utive days weekly.	do	Temperature to normal in 1-4 days; parasites disappeared in 1-3 days.
Malignant tertian— 29 cases.	Bilhydrochloride, 15 grains daily	2 days	Temperature to normal in 1-4 days; parasites disappeared in 1-3 days.
Malignant tertian— 1 case.	do	do	Temperature to normal in 3 days; parasites disappeared in 4 days; crea- tins usually persisted.
Simple tertian— 10 cases.	Sulphate, 30 grains on each of 2 con- secutive days weekly.	5 weeks	Temperature to normal in 1-3 days; parasites disappeared in 1-4 days.
Simple tertian— 3-6 injections.	Tartar emetic, 2.2-10.1 grains (total), 2-6 injections.	10-14 days	Lid not controlled or eradicated para- sites.
Simple tertian— 1 case.	Quinine, 20 grains daily, 10 days; Tartar emetic, 2.2-2.2 grains (total), 3-6 injections.	9 days	No effect.
Malignant tertian— several cases.	do	Orally	Fever controlled; parasites disap- peared from peripheral blood.
		Intravenously	Coughing and vomit- ing and in 1 case col- lapse.
		Intravenously	do
		do	Coughing and vomit- ing in several cases.

TABLE I.—Continued.

Type and number of cases.	Substance and dose.	Length of treatment.	Method of administration.	Toxic effect.	Palliative effect.	Curetive effect and relapses.
Double injection with simple and malignant tertian—1 case.	Tartaremetric, 4 grains (total).	12 days....	Intravenously....	.....	No effect.....	No effect.
Simple tertian—10 cases.	Contents of 1 ampoule of trypsin and 1 amylolysin and up to 10 c. normal saline, 1-3 injections.	1-7 days....	Into muscle below the scapula.....	Some swelling and tenderness.	Fever controlled in 3 cases only; parasites persisted.	Do.
Simple tertian—20 cases.	Novarsenobenzol-billon, 0.5 grain, 1 injection.	1 day.....	Intravenously.....	.....	Temperature to normal in 1-3 days; parasites disappeared in 1-105 days.	90 per cent relapses in 11-105 days.
Simple tertian—23 cases.	Novarsenobenzol-billon, 0.5 grain, 1 injection.	do.....	do.....	.....	.....	6 per cent relapses in 6-16 days.
Simple tertian—21 cases.	Novarsenobenzol-billon, 0.9 grain.....	do.....	do.....	.....	.....	65 per cent relapses in 5-63 days.
Simple tertian—9 cases.	Quintoxin, 5 grains, 5 cases, 10 grams daily, 4 cases.	2 days....	Orally.....	.....	No effect.....	No effect.
Simple tertian—4 cases.	Disodo-iuargol, 0.1 gram on first day, 0.15 gram on fifth day.	5 days....	Intravenously.....	.....	None.....	None.
Simple tertian—9 cases.	Disodo-iuargol, 0.2 gram .....	1 day.....	do.....	.....	.....	100 per cent relapses in 7-17 days.
Simple tertian—15 cases.	Colossal manganese, 1 c. e. on each of 2 consecutive days	2 days....	Intramuscularly.....	.....	.....	None.
Simple tertian—3 cases.	Liquor arsenicale, 15 minims daily....	2 cases 7 days; 1 case, 22 days.	Orally.....	.....	do.....	Do.
Simple tertian—2 cases.	Bihydrochloride, 15 grains on each of first 2 days.	{ 13-18 days....	{ Intramuscularly.....	.....	{ Symptoms controlled by quinine; no effect by arsenic.	{ 82-86 per cent relapses
Simple tertian—28 cases.	Liquor arsenicale, 15 minims daily.	8 weeks.....	Orally.....	.....	Temperature to normal in 5 days; parasites disappeared in 1-7 days in 21 cases.	75-87 per cent relapses in 1-37 days.
Simple tertian—25 cases.	Liquor arsenicale, 15 minims; quinine hydrochloride, 5 grains daily.	do.....	do.....	.....	.....	75-87 per cent relapses in 1-26 days.
Simple tertian—26 cases.	Liquor arsenicale, 15 minims; liquor styraxine, 15 minims; quinine hydrochloride, 5 grams daily.	do.....	do.....	.....	Temperature to normal in 3 days; in 16 cases, parasites disappeared in 1-10 days.	62-69 per cent relapses in 60 days.
Simple tertian—14 cases.	Quinine hydrochloride, 5 grains daily.....	do.....	do.....	.....	Temperature to normal in 10 days; in 13 cases parasites disappeared in 2-6 days.	85 per cent relapses in 1-12 days.
Simple tertian—33 cases.	Liquor arsenicale, 30 minims daily.....	8 weeks—2 weeks on 1 week off.	[ intramuscularly.....	.....	{ Temperature to normal in 2 days; parasites disappeared in 1-4 days.	{ 12.5 per cent of cases relapsed in 1-15 days.

Malignant tertian—14 cases.	Novarsenobenzol-billon, 0.45–0.9 gram. 1 day.....	Intravenously.....	None.....
Malignant tertian—10 cases.	Billydrochloride, 15 grains on each of 2 consecutive days.	Intramuscularly.....	{ Temperature to normal in 2 days; rings disappeared in 3 days.
Malignant tertian—1 case.	Novarsenobenzol-billon, 0.9 grams.....	Intramuscularly.....	{ Temperature to normal in 2 days; rings disappeared in 2 days.
Malignant tertian—1 case.	Billydrochloride, 15 grains on each of 2 consecutive days.	Intramuscularly.....	{ Temperature to normal in 2 days; rings disappeared in 2 days.
Malignant tertian—16 cases.	Liquor arsenicallis, 30 minimus daily.....	Orally.....	{ Temperature to normal in 3 days; rings disappeared in 3 days.
Simple tertian—22 cases.	Liquor arsenicallis, 30 minimus on first, second, eighth, ninth, fifteenth, and sixteenth days.	Intramuscularly.....	{ Temperature to normal in 3 days; rings disappeared in 3 days.
Quintan—2 cases	Quinine sulphate, 30 grains daily for 3 weeks and 45 grains daily for 1 week.	Orally.....	Grains 30–40 well tolerated; caused tremors and vomiting.
Do.....	Novarsenobenzol-billon, 0.9 grains, 2 injections.	Intravenously.....	No effect.....
Simple tertian—41 cases.	Quinine hydrochloride, 15 grains, 2 injections.	Intramuscularly.....	Intramuscularly controlled in 1 case; no other effect.
Simple tertian—12 cases.	Novarsenobenzol-billon, 0.9 gram, 1 injection.	Intravenously.....	{ Temperature controlled in 1 day; parasites disappeared in 1 day.
Simple tertian—18 cases.	Billydrochloride, 15 grains, 2 injections.	Intramuscularly.....	{ Temperature to normal in 2 days; parasites disappeared in 1 day.
Simple tertian—45 cases.	Novarsenobenzol-billon, 0.9 grain, 3 injections.	Intramuscularly.....	{ Temperature to normal in 2 days; parasites disappeared in 1 day.
	Billydrochloride, 15 grains, 6 injections.	Intramuscularly.....	{ Temperature to normal in 2 days; parasites disappeared in 2–3 days.
	Billydrochloride, 15 grains, 2 injections.	Intramuscularly.....	{ Temperature to normal in 2 days; parasites disappeared in 2–3 days.
	Liquor arsenicallis, 30 minimus daily.	O orally.....	{ Temperature to normal in 3–4 days; parasites disappeared in 1–4 days.
	Quinine hydrochloride, 15 grain, 6 injections.	Intramuscularly.....	{ Temperature to normal in 3–4 days; parasites disappeared in 60 days.

The following is a review of four short papers which were contributed subsequently and which afford a comparative study in the response to treatment of Europeans and natives of tropical countries:

I. Oral Administration of Quinine or Quinine and Arsenic for Short Periods to Young Native Children Infected with Malignant Tertian Malaria. By J. W. S. Macfie and M. W. Fraser.

II. Oral Administration of Quinine Sulphate, Grains 20, to Adult Natives Infected with Malignant Tertian Malaria. By J. W. S. Macfie.

III. Oral Administration of Quinine Sulphate, Grains 10, Daily for Two Consecutive Days Only to Native Schoolboys Infected with Malignant Tertian Malaria. By J. W. S. Macfie.

IV. Oral Administration of Quinine Sulphate to Natives Infected with Quartan and Simple Tertian Malaria. By J. W. S. Macfie.

These observations, recorded in a series of four papers published in the Annals of Tropical Medicine and Parasitology for June 30, 1920, were conducted at Accra, in Gold Coast, West Africa, all of the patients being natives infected in Gold Coast, and the periods of observation extending from July to December, 1919. In all cases the presence of trophozoites in the cutaneous blood was determined microscopically on the day that treatment began, although the patients, with few exceptions, appeared to be healthy. The period of observation after treatment, except in Series II of the table (50 days), was 60 days. Treatment was given on two consecutive days (in a few cases on one day only), 20 grains of quinine sulphate in the case of adults, 10 grains (in a few instances, 20 grains) in the case of children. The administration of arsenic in addition to quinine, as tried in the first experiment, did not cause the resulting percentage of relapses to vary from that following the administration of quinine alone. By relapse is indicated parasitic relapse, since very few of the patients gave history of febrile relapse.

In the following table the subjects of the experiments in the three papers dealing with malignant tertian are grouped according to age. Under the percentage of relapses a double percentage is given in some cases, indicating that some of the patients passed from observation before the usual period of 60 days had elapsed, and while no relapse had occurred up to that time they are included in the maximum percentages of relapses possible.

TABLE II.

Series.	Number of patients treated.	Age.	Per cent of relapses.
I.....	17	6 months to 7 years.....	94
II.....	19	5 to 8 years.....	63
III.....	13	9 to 11 years.....	54-69
IV.....	19	12 to 14 years.....	89
V.....	11	15 to 18 years.....	64
VI.....	11	Adults.....	0-9

The author accounts for the fact that the rate of parasitic relapse diminishes with increasing age by development of tolerance in the natives. He concludes that "the power of the natives to cope with malaria infections begins to make itself felt early in life, has already attained a considerable degree of efficiency by the age of 5 to 8 years, thereafter is maintained during adolescence with a remission at the age of puberty, and is enhanced in adult life." In comparing these results with experiments conducted with adult Europeans at Liverpool, he notes that the percentage of relapses among Europeans exceeded even that of native children at Accra, owing, perhaps, to the failure of Europeans to develop tolerance or to the natural differences found in the disease in tropical and temperate climates.

The fourth paper deals with a similar treatment of 20 cases of quartan and simple tertian malaria and tends to confirm the conclusion drawn in the three other papers that in these types, as in malignant tertian malaria, the percentage of relapses in native adults is less than that in young children and in other than very young children is decidedly less in natives of the Tropics than in Europeans treated in England.

### VENEREAL DISEASE INCIDENCE AT DIFFERENT AGES.<sup>1</sup>

#### A Tabulation of 8,413 Case Reports in Indiana.

By MARY L. KING and EDGAR SYDENSTRICKER, Statistician, United States Public Health Service.

In a preceding publication<sup>2</sup> emphasis was placed upon the need for statistical data relating to the incidence and prevalence of venereal diseases. It was pointed out that such data, when properly analyzed, would assist in defining more clearly the particular problems involved at this stage of the antivenereal disease campaign and might afford some guidance in determining the directions in which pre-

<sup>1</sup> From the Statistical Office, United States Public Health Service. Prepared in cooperation with the Division of Venereal Diseases, United States Public Health Service. Acknowledgments are made to the State Board of Health of Indiana for the use of the case reports.

<sup>2</sup> Pierce, C. C., and Sydenstricker, Edgar. Some Possibilities in the Statistical Analysis of Case Reports of Venereal Diseases: Public Health Reports, Aug. 27, 1920. (35: 2046-2055.)

ventive effort might be most effectively expended. In the absence of complete records of venereal-disease prevalence in typical population groups, particularly in relation to various social conditions that probably influence its incidence, the suggestion was made that case reports should be utilized to the full extent of their practical value.

In accordance with this suggestion, certain tabulations and analyses of the case reports of venereal diseases in several States are being undertaken in the Statistical Office of the United States Public Health Service. This work necessarily is an experiment because of certain known limitations of the data. In the first place, on no possible assumption can these case reports be regarded as including all of the cases of venereal diseases actually existing or occurring within a given period for any locality or area. In the second place, they are probably restricted to certain types or stages—to those cases which were at stages when infected persons were impelled to seek a physician's advice. Cases which were latent or which exhibited no acute or troublesome symptoms may be regarded as almost wholly unreported. The reports can be considered, therefore, at best as only samples of this general type in various population groups and classes. It is realized that special care must be taken in any analysis of them, and that a great deal of caution must be exercised in drawing definite conclusions. Obviously such observations as can be made must be stated in relative terms rather than in terms of actual incidence, and conclusions drawn therefrom can be regarded as only tentative. But, in spite of these limitations, it was felt that the material contains certain information which would be of distinct value were it made available. Furthermore, it was believed that practical suggestions for improving the system and methods of venereal disease notification would be afforded only if an actual attempt were made to utilize some of the ever-accumulating reports.

Through the courtesy of the State Board of Health of Indiana, about 8,400 white case reports of venereal diseases were made available for study. These reports, while incomplete for any single detail, show for large proportions of the cases the following information: Nativity, sex, age, marital condition, and occupation of person affected; and for each diagnosis the duration and stage of the present attack, the source of infection, and place where exposure to infection occurred. In the present paper only the distribution according to age of cases of gonorrhea, syphilis, chancreoid, and their various combinations is considered. The age distribution is compared for the different diseases as well as for persons of different sexes and marital conditions. Further presentation of the data in other details is planned for a later article.

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Since the cases actually reported can be considered only as a *sample* of the total number of cases of a given type actually existing among the population of Indiana, the assumption is necessary that the age distribution of this sample is similar to that of the total. The validity of such an assumption is, of course, debatable, but, in our opinion it is a reasonable one, within broad limits, for two reasons: (1) A large proportion of the cases were reported by physicians practicing in families, who had the opportunity for observing the incidence of disease in a population whose age distribution approaches that of the general population of a community or section; (2) while a certain proportion of cases, especially at certain ages, did not come to the attention of the family physician, these cases probably constitute a considerable part of the clientele of the specialist and of the clinic. The reports of the latter class of cases would tend to counterbalance the failure of family physicians to see them in the course of their practice. The indicated variations in age incidence based upon case reports must, however, be regarded as open to serious question. Only when an accurately observed incidence among a definitely enumerated population is available can we be certain of the true variations for a given population group.

The term "age" as here employed is the age at which infection occurred, or "age at onset." It is doubtful whether or not the reports are as accurate in this respect as could be desired. The age at onset was computed for each case from the record of the "duration" of infection and of the age of the patient at the date on which the report was made. In many cases the data as to duration of infection were incomplete. The age at onset, therefore, for any group may be regarded probably as somewhat too high, especially for unmarried men, although a comparison of the age distribution of cases where no data as to duration were given with that of cases where the age at onset could be determined did not indicate any marked divergences.

A summary of the cases under consideration is given in Table I, in which the cases are classified according to diagnosis and the sex of the person affected. Fifty-six per cent, or 4,708 of the total cases, were affected with gonorrhea; 35 per cent, or 2,969, with syphilis; and 2 per cent, or 188, with chancroid. There was a total of 8,413 cases, the additional 548 cases representing the various combinations of gonorrhea, syphilis, and chancroid. Gonorrhea and chancroid were relatively more frequent among male cases of venereal diseases, and syphilis relatively more frequent among female cases. The combination of gonorrhea and syphilis was found in over 10 per cent of female cases as against only 3 per cent of male cases.

TABLE I.—Number of cases of venereal diseases among white persons reported to Indiana State health department Jan. 1, 1918–Mar. 1, 1920, and proportion of total cases which were specified infections, by sex.

Disease.	NUMBER.	Both sexes, <sup>a</sup>	Male.	Female.
All venereal diseases.....	8,413	6,374	2,031	
Gonorrhea.....	5,181	4,138	1,038	
Gonorrhea (alone).....	4,708	3,881	822	
Syphilis.....	3,479	2,278	1,198	
Syphilis (alone).....	2,969	1,988	978	
Chancroid.....	337	314	23	
Chancroid (alone).....	188	179	9	
Gonorrhea and syphilis.....	369	191	208	
Gonorrhea and chancroid.....	33	36	2	
Syphilis and chancroid.....	75	69	6	
Gonorrhea, syphilis, and chancroid.....	36	30	6	

PER CENT.				
		100.0	100.0	100.0
All venereal diseases.....		61.8	64.9	51.0
Gonorrhea.....		55.9	60.9	40.4
Gonorrhea (alone).....		41.3	35.7	59.0
Syphilis.....		35.3	31.2	48.1
Syphilis (alone).....		4.0	4.9	1.1
Chancroid.....		2.2	2.8	.4
Chancroid (alone).....				
Gonorrhea and syphilis.....		4.7	3.0	10.2
Gonorrhea and chancroid.....		.5	.6	.1
Syphilis and chancroid.....		.9	1.1	.3
Gonorrhea, syphilis, and chancroid.....		.4	.5	.3

<sup>a</sup> Including cases for which sex was not stated.

TABLE II.—Number of reported cases of venereal diseases according to age and sex among white persons in Indiana.

Reported age at onset.	All venereal diseases.		Gonorrhea.		Syphilis.		Chancroid.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Total.....	6,136	1,630	4,000	909	2,174	1,132	303	22
Under 15.....	72	105	25	60	48	73	—	—
15.....	24	58	18	49	6	21	—	—
16.....	87	78	67	57	22	34	—	2
17.....	179	117	137	85	45	42	6	1
18.....	333	150	265	100	75	72	14	2
19.....	463	170	363	95	108	98	13	5
20.....	426	130	307	73	121	76	28	1
21.....	49	116	355	59	138	74	26	—
22.....	388	111	235	57	103	69	26	1
23.....	363	89	23	53	115	46	16	—
24.....	367	116	234	51	136	78	22	—
25-29.....	1,229	246	792	130	445	176	60	5
30-34.....	63	165	39	69	290	108	42	3
35-39.....	486	121	277	38	231	88	26	1
40-44.....	243	53	114	14	128	41	14	—
45 and over.....	304	65	148	9	161	56	15	—

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The number of cases of all venereal diseases and of gonorrhea, syphilis, and chancreoid is given in Table II, in which the cases are classified according to age and sex groups. In the appendix more detailed tables may be found, showing the number of cases of all venereal diseases and of gonorrhea, syphilis, and chancreoid, by single years of age at the time of onset for both sexes and various marital conditions.

The distribution of cases according to age does not, of course, afford a true picture of incidence unless the population at the various ages is taken into consideration. Since the reports are incomplete, a morbidity rate per 1,000 of population is misleading and should be avoided. But while we can not properly use morbidity rates, we can find the relative variations in incidence by utilizing a series of ratios computed by the following method:

First, the percentage distribution of the 1910 white population in Indiana was computed in such detail according to age as the census reports permitted. Second, the percentage distribution of the venereal disease cases was computed according to age, using the same groups as were employed in obtaining the distribution of population. Third, the percentage of cases in each age group was divided by the percentages of the population in the corresponding age group. This was done for both sexes and for all venereal diseases, as well as for gonorrhea and syphilis separately. Using the broader age groups published for persons of different marital conditions, similar computations were made for venereal diseases among males and females of different marital conditions.

TABLE III.—*Relative variations<sup>a</sup> in the incidence of venereal diseases according to age and sex among white persons in Indiana.*

Reported age at onset.	All venereal diseases.		Gonorrhea.		Syphilis.		Chancreoid.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Under 15.....	4	18	2	20	8	16	.....	.....
15.....	21	161	25	262	15	99	.....	.....
16.....	74	292	87	286	52	150	.....	455
17.....	151	317	177	446	107	194	101	238
18.....	277	377	338	486	176	309	232	441
19.....	402	466	482	503	264	458	224	1,202
20.....	369	334	409	362	296	332	484	225
21.....	428	327	477	321	341	356	454	.....
22.....	349	306	394	301	267	324	466	242
23.....	321	244	345	281	289	215	284	241
24.....	338	334	331	284	354	383	403	.....
25-29.....	239	174	236	173	244	183	232	267
30-34.....	153	116	134	94	184	130	188	186
35-39.....	113	91	91	55	151	113	120	66
40-44.....	64	45	46	23	95	60	74	.....
45 and over.....	21	15	15	4	32	22	21	.....

<sup>a</sup> The relative numbers in this table are a series of ratios obtained by dividing the percentage of total cases at each age by the percentage of the total population at the corresponding age. The population used was that of 1910.

The resulting ratios are not morbidity rates. They may be described as indices of the variations in age incidence of the disease or diseases in question among persons of specified sex and marital condition. Obviously, if all cases were reported and the population accurately was enumerated for the specified period during which the cases occurred, the indices or relative variations thus obtained would be the same as those based on morbidity rates.

The indices of age incidence for both sexes are given in Table III and are plotted in Figures 1, 2, and 3. Three indications may be noted: (1) That venereal diseases have their highest incidence in the young adult ages between 17 and 25; (2) that gonorrhea apparently

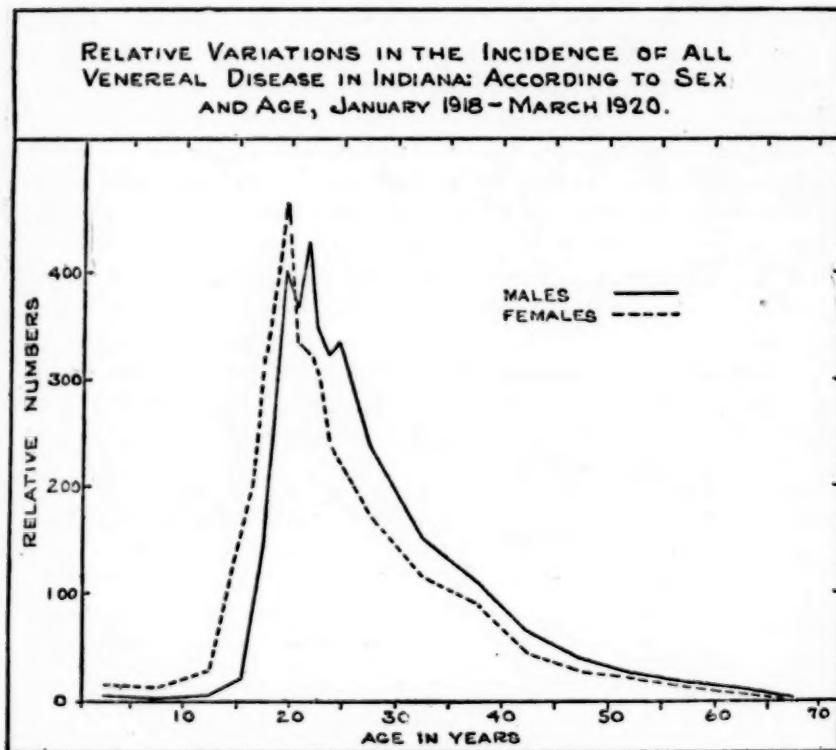


FIGURE 1.

tends to reach its highest incidence earlier than do syphilis and chancreoid; (3) that the incidence of each of the three diseases occurs at younger ages among females than among males.

The peak in incidence for females is definitely at the age of 19 for all venereal diseases, and each for the three diseases, except syphilis, the curves being clearly unimodal. In the case of males, however, the curve is less regular, but it seems to be evident that the ages of highest incidence of gonorrhea are 19-21, of syphilis 19-24, and of chancreoid 20-24. For some reason the curve for males is in each instance not definitely unimodal, and in the case of syphilis is definitely bimodal.

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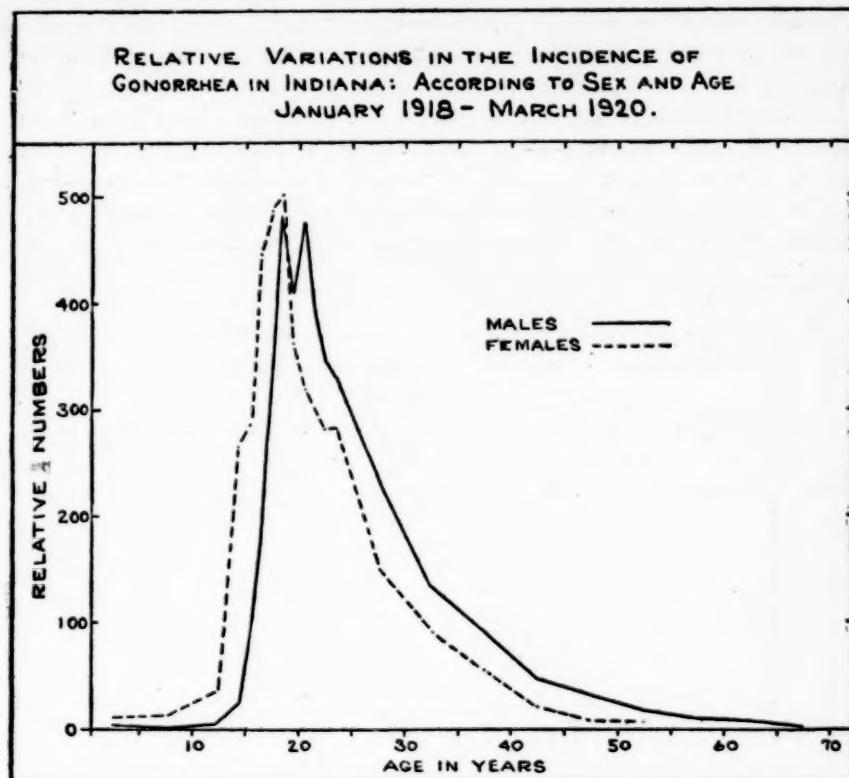


FIGURE 2.

TABLE IV.—*Relative variations<sup>a</sup> in the incidence of venereal diseases according to age among white persons of both sexes, compared for 10 cantonment zones and Indiana.*

Reported age at onset.	Male.		Female.	
	14 cantonment zones.	Indiana.	14 cantonment zones.	Indiana.
Under 15.....	2	4	19	18
15.....	69	21	53	161
16.....	58	74	191	202
17.....	233	151	447	317
18.....	300	277	409	377
19.....	571	402	650	466
20.....	557	369	382	334
21.....	493	428	319	327
22.....	580	349	317	306
23.....	609	324	188	244
24.....	313	338	129	334
25-29.....	244	239	165	174
30-34.....	158	153	65	116
35-39.....	57	113	45	91
40-44.....	40	64	30	45
45 and over.....	22	21	20	15

\* The relative variations in this table are a series of ratios obtained by dividing the percentage of total cases at each age by the percentage of the total population at the corresponding age. The population distribution used for the 10 cantonment zones was that enumerated in sample areas in several zones in 1918-19 in the course of special influenza surveys, and that for Indiana was as of the 1910 census.

A comparison of the relative variations in age incidence of venereal diseases among persons of either sex as found for Indiana with those found for 10 cantonment zones reveals a striking similarity.<sup>3</sup> For females the peaks of the two curves occur in the same year, at the age of 19. In the case of males the ascending limbs are quite similar and both reach a peak at the age of 19; in the 10 cantonment zones, however, the curve is definitely bimodal, and a second peak occurs at the age of 23. The suggestion is afforded that the incidence of

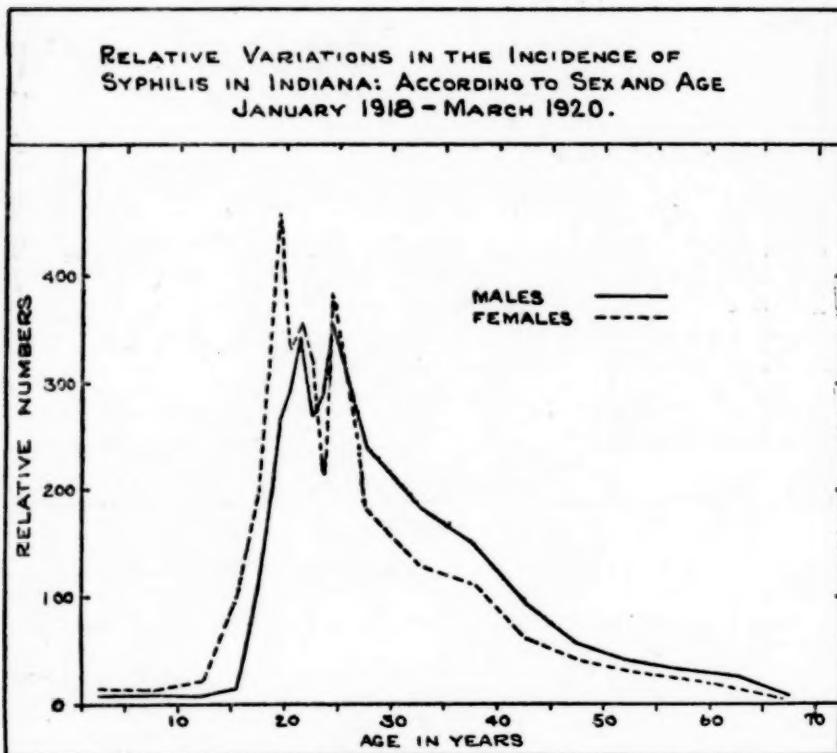


FIGURE 3.

venereal diseases was confined in Indiana to a younger group of males than in the 10 cantonment zones.

The age curves of venereal disease incidence are compared for married and single persons in Table V and Figure 4. In making this comparison it is important to bear in mind that the incidence presumably is at the age at which infection occurred, while marital condition is that at the age when the existence of the infection was reported.

<sup>3</sup> Pierce, C. C., and Sydenstricker, Edgar: *Loc. cit.*

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**RELATIVE VARIATIONS IN VENEREAL DISEASE INCIDENCE ACCORDING  
TO REPORTED AGE AT ONSET AMONG PERSONS OF DIFFERENT  
MARITAL CONDITION AT TIME OF REPORT IN INDIANA**

Age of highest incidence for each group = 100

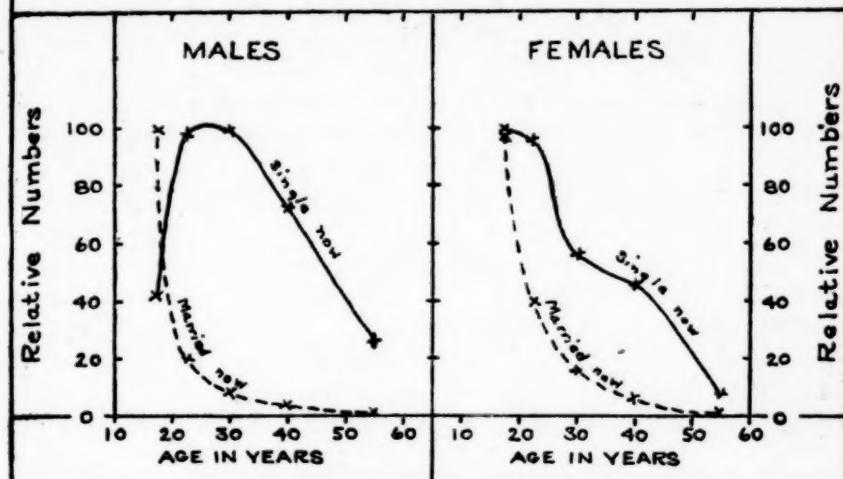


FIGURE 4.

TABLE V.—*Relative variations in the incidence of venereal diseases according to age among white persons of both sexes and different marital conditions in Indiana.*

**SINGLE.**

Reported age at onset	All venereal diseases		Gonorrhea		Syphilis		Chancroid.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
15-19.....	60	121	70	143	42	100	34	108
20-24.....	141	117	148	106	126	129	155	71
25-34.....	142	71	129	39	166	102	173	156
35-44.....	104	57	77	36	165	76	112	119
45 and over.....	38	11	24	.....	69	23	31	.....

**MARRIED.**

15-19.....	1,850	607	1,774	863	2,037	618	.....	158
20-24.....	377	278	394	305	355	277	377	89
25-34.....	164	117	175	121	150	111	140	176
35-44.....	83	51	74	32	94	61	108	.....
45 and over.....	24	15	21	47	27	20	34	.....

\*The relative numbers in the table are a series of ratios obtained by dividing the percentage of total cases at each age by the percentage of the total population at the corresponding age, for each sex and marital group. The population distribution used was that of 1910.

The curves are quite dissimilar for males who have married and for those who have remained single. For males married at the time of report the incidence in the age period 15-19 was nearly 5 times as high as in the age period 20-24, and over 10 times as high as in later age periods. In sharp contrast to this is the curve for males remaining single. Here the incidence in the age period 20-34 is over twice that in the age period 15-19, and remains relatively high in the period 35-44. This contrast tends to confirm the frequent observation that marriage greatly reduces venereal infections among males. In fact, if the proportion of males at each age period who were single, according to the 1910 census for Indiana, be compared with the variations in venereal disease incidence among males, a rather high degree of correlation is indicated ( $r=0.85 \pm 0.19$ ). In the case of females the curves tend to be more similar, but in interpreting them two considerations should be regarded as possible: (1) That infections among single females occur chiefly among that class described as prostitutes (commercial and clandestine); and (2) that infections among married females occur chiefly after marriage. If the age curves for married males be compared with that for married females, the curve for females tends to lag behind that for males, suggesting that the age at onset occurs among married females even later than in the case of males of the same group. When this indication is taken into consideration with the fact that females marry at younger ages than males, the contrast between premarital infection in the case of males and post-marital infection in the case of females is further emphasized. The relatively high—very high—incidence among women of younger ages, presumably soon after marriage, is an outstanding indication.

#### Summary.

1. For the purpose of throwing some light upon the question of the age incidence of venereal infections, and in the absence of complete data for any definitely and accurately observed population group, certain tabulations were made of approximately 8,400 case reports of venereal diseases among white persons in Indiana.

2. Considering these cases as fair samples of the total cases of that type which actually exist in the population under consideration, indices of venereal disease incidence according to age of onset were computed for persons of both sexes and of different marital condition by adjusting the age distribution of cases to that for the population of Indiana in 1910.

3. While the data can not be considered conclusive, they suggest the following points:

(a) The greatest incidence of venereal infections occurs in early adult ages, between 17 and 25. This is true of both males and females.

(b) The incidence of venereal infections is earlier among females than males. The modal or peak age for females is 19 years, while that for males is approximately 21 years.

(c) While the data are not definite on this point, the evidence suggests that among persons married at the time of report, venereal infections were largely premarital in the case of males and postmarital in the case of females.

(d) There is a wide divergence in the incidence curves for males who were married previous to the time of report and for males who had remained single. In the one case, infections were confined chiefly to the younger adult ages (under 20); in the other, the incidence in the adult ages (20-24) was considerably higher than in the younger ages. The effect of marriage apparently was to greatly lessen the incidence of venereal infection among males.

(e) Gonorrhea apparently occurs at slightly younger ages than syphilis or chancreoid among both males and females.

4. In view of the limitations of the data with respect to the number of cases reported, the stage at which disease was reported, the possible errors in determining accurately the age at which infection occurred, and the use of the 1910 age distribution of population, these observations can not, of course, be regarded as definitely conclusive.

#### Appendix.

TABLE A.—Number of cases of venereal diseases reported to Indiana State Health Department among white persons during the period Jan. 1, 1918, to Mar. 1, 1920, by single years of age, and by sex and marital condition.

Age by single years.	Total.				Male.				Female.						
	Total.	Single.	Married.	Widowed, separated, divorced, Marital condition, unknown.	Total.	Single.	Married.	Widowed, separated, divorced, Marital condition, unknown.	Total.	Single.	Married.	Widowed, separated, divorced, Marital condition, unknown.			
Total.....	8,405	5,096	2,795	261	253	6,374	4,320	1,724	123	207	2,031	776	1,071	138	46
Age not stated....	339	150	123	9	54	238	123	66	2	47	101	27	60	7	7
All known ages...	8,066	4,946	2,669	252	199	6,136	4,197	1,658	121	160	1,930	749	1,011	131	39
Under 1.....	23	22	1	—	—	16	16	—	—	—	—	6	1	—	—
1.....	4	4	—	—	—	3	3	—	—	—	—	1	1	—	—
2.....	10	10	—	—	—	3	3	—	—	—	—	7	—	—	—
3.....	6	6	—	—	—	1	1	—	—	—	—	5	—	—	—
4.....	9	9	—	—	—	2	2	—	—	—	—	7	—	—	—
5.....	5	5	—	—	—	2	2	—	—	—	—	3	—	—	—
6.....	8	8	—	—	—	3	3	—	—	—	—	5	—	—	—
7.....	7	—	—	—	—	4	4	—	—	—	—	3	—	—	—
8.....	13	13	—	—	—	5	5	—	—	—	—	8	—	—	—
9.....	9	9	—	—	—	3	3	—	—	—	—	6	—	—	—
10.....	13	13	—	—	—	4	4	—	—	—	—	9	—	—	—
11.....	2	2	—	—	—	—	—	—	—	—	—	2	—	—	—
12.....	12	11	1	—	—	7	7	—	—	—	—	5	4	1	—
13.....	20	17	3	—	—	6	4	2	—	—	—	14	13	1	—
14.....	36	32	4	—	—	13	11	2	—	—	—	23	21	2	—
15.....	82	60	16	—	—	24	22	2	—	—	—	58	44	11	—
16.....	165	137	24	3	1	87	74	10	2	1	—	78	63	14	1
17.....	296	247	40	3	6	179	165	8	—	—	—	117	82	32	3
18.....	483	392	75	9	7	333	303	24	2	4	—	150	89	51	7
19.....	633	489	106	18	20	463	402	39	6	16	170	87	67	12	4



TABLE B.—Number of cases of gonorrhea reported to Indiana State Health Department among white persons during the period Jan. 1, 1918, to Mar. 1, 1920, by single years of age and by sex and marital condition.

Age by single years.	Total.				Male.				Female.						
	Single.		Married.		Single.		Married.		Single.		Married.				
	Total.	Widowed, separated, divorced, unknown.	Marital condition, unknown.	Total.	Widowed, separated, divorced, unknown.	Marital condition, unknown.	Total.	Widowed, separated, divorced, unknown.	Marital condition, unknown.	Total.	Widowed, separated, divorced, unknown.	Marital condition, unknown.			
Total.....	5,176	3,464	1,427	135	150	4,138	2,986	932	71	129	1,038	478	475	61	21
Age not stated.....	177	100	50	4	23	138	83	33	1	21	39	17	17	3	2
All known ages.....	4,999	3,364	1,377	131	127	4,000	2,903	919	70	108	999	461	458	61	19
Under 1.....	7	7				5	5								
1.....	1														
2.....	5	5				2	2								
3.....	3	3													
4.....	3	3				1	1								
5.....	2	2													
6.....	3	3													
7.....	3	3													
8.....	3	3													
9.....	3	3													
10.....	5	5				1	1								
11.....															
12.....	7	6	1			3	3	1			4	3	1		
13.....	13	12	1			3	2	1			10	10			
14.....	28	27	1			10	10				18	17	1		
15.....	67	54	13			18	17	1			49	37	12		
16.....	124	107	13	3	1	67	60	4	2	1	57	47	9	1	
17.....	222	193	22	2	5	137	128	4			85	65	18	2	
18.....	365	314	39	5	7	265	249	11	1	4	103	65	28	4	3
19.....	458	374	57	12	15	363	321	24	5	13	95	53	33	7	2
20.....	380	300	63	6	11	307	269	26	2	10	73	31	37	4	1
21.....	414	326	71	7	10	355	300	43	3	9	50	26	28	4	1
22.....	342	242	83	9	8	285	223	51	3	8	57	19	32	6	
23.....	306	212	72	12	10	233	201	43	3	6	53	11	29	9	4
24.....	285	187	81	7	10	234	173	50	2	9	51	14	31	5	1
25.....	229	154	63	6	6	200	149	42	4	5	29	5	21	2	1
26.....	225	129	85	9	7	194	121	60	6	7	31	3	25	3	
27.....	183	111	63	6	3	158	109	43	3	3	25	2	20	3	
28.....	152	77	71	2	2	125	72	50	2	1	27	5	21	1	
29.....	133	76	54	3		115	73	41	1		18	3	13	2	
30.....	129	56	64	3	6	107	55	45	2	5	22	1	19	1	1
31.....	84	45	33	4	2	77	44	28	3	2	7	1	5	1	
32.....	96	42	50	2	2	84	41	39	2	2	12	1	11	1	
33.....	73	29	37	4	3	56	27	25	1	3	17	2	12	3	
34.....	76	32	41	2	1	65	30	32	2	1	11	2	9		
35.....	93	43	47	2	3	85	43	36	2	2	10	9	4	1	
36.....	52	27	18	3	4	44	24	14	2	4	8	3	4	1	
37.....	46	18	21	4		39	17	20	2		7	1	4	1	2
38.....	76	35	38	3		64	39	32	2		12	5	6	1	
39.....	26	12	12	2		25	12	11	1		1				
40.....	48	21	25	2		45	21	22			3				
41.....	21	6	12	2	1	18	6	9			3				
42.....	25	7	14	3	1	22	7	11			3				
43.....	17	8	7	2		15	8	6			2		1	1	
44.....	17	2	11	1		14	11	12			3	1	2		
45.....	25	8	15	2		22	8	13	1		3		2	1	
46.....	17	4	10	3		16	4	9	3	1	1		1		
47.....	13	6	7			12	6	6			1		1		
48.....	11	2	9			11	2	9							
49.....	7	1	6			7	1	6							
50.....	14	6	6	1	1	13	6	6	1		1				
51.....	9	4	5			7	4	3			2				
52.....	7	1	6			7	1	6							
53.....	4		4			4		4							
54.....	2	1	5		1	6	1	4		1	1		1		
55.....	2	1	1			2	1	1							
56.....	5	2	3			5	2	3							
57.....	2		2			2		2							
58.....	5	1	3	1		1	3	1							
59.....	2	1	1	1		2	1	1							

TABLE B.—Number of cases of gonorrhea reported to Indiana State Health Department among white persons during the period Jan. 1, 1918, to Mar. 1, 1920, by single years of age, and by sex and marital condition—Continued.

Age by single years.	Total.			Male.			Female.		
	Total.	Single.	Married.	Total.	Single.	Married.	Total.	Single.	Married.
				Widowed, separated, divorced. Marital condition unknown.			Widowed, separated, divorced. Marital condition unknown.		Widowed, separated, divorced. Marital condition unknown.
60.....	4	3	1						
61.....	1	1							
62.....	1								
63.....									
64.....									
65.....	2		2		2		2		
66.....									
67.....	1		1		1		1		
68.....	1	1			1				
69.....									
70.....	1	1			1				
71.....									
72.....									
73.....									
74.....									
75.....	1	1			1				
76.....									
77.....									
78.....	1	1			1				
79.....									
80.....									

TABLE C.—Number of cases of syphilis reported to Indiana State Health Department among white persons during the period Jan. 1, 1918, to Mar. 1, 1920, by single years of age, and by sex and marital condition.

Age by single years.	Total.			Male.			Female.		
	Total.	Single.	Married.	Widowed, separated, divorced. Marital condition unknown.	Single.	Married.	Widowed, separated, divorced. Marital condition unknown.	Single.	Married.
									Widowed, separated, divorced. Marital condition unknown.
Total.....	3,456	1,748	1,476	153	102	2,278	1,367	784	692
Age not stated....	170	56	77	6	31	104	43	34	97
All known ages...	3,306	1,692	1,399	144	71	2,174	1,324	750	649
Under 1.....	16	15	1		11	11		5	1
1.....	3	3			3	3			
2.....	5	5			1	1		4	4
3.....	3	3			1	1		2	2
4.....	6	6			1	1		5	5
5.....	3	3			2	2		1	1
6.....	5	5			3	3		2	2
7.....	5	5			4	4		1	1
8.....	11	11			5	5		6	6
9.....	6	6			2	2		4	4
10.....	8	8			3	3		5	5
11.....	2	2						2	
12.....	6	5	1		4	4		1	1
13.....	10	7	3		4	2	2	5	1
14.....	12	9	3		4	2	2	7	1
15.....	27	18	9		6	5	1	13	8
16.....	56	40	13	1	22	15	7	25	8
17.....	87	64	20	2	1	45	40	4	1
18.....	147	101	40	5	1	75	60	13	27
19.....	206	132	58	11	5	108	87	16	45

**TABLE C.**—Number of cases of syphilis reported to Indiana State Health Department among white persons during the period Jan. 1, 1918, to Mar. 1, 1920, by single years of age, and by sex and marital condition—Continued.

Age by single years.	Total.						Male.			Female.		
	Married.			Widowed, separated, divorced, Marital condition, unknown.			Married.			Widowed, separated, divorced, Marital condition, unknown.		
	Total.	Single.	Married.	Total.	Single.	Married.	Total.	Single.	Married.	Total.	Single.	Married.
20.	197	112	74	8	3	121	84	32	3	76	28	42
21.	212	137	67	4	4	138	109	28	1	74	28	39
22.	174	96	65	9	4	105	89	21	1	69	16	44
23.	161	84	66	8	3	115	76	35	2	46	8	31
24.	214	108	86	16	4	136	91	41	2	73	17	45
25.	141	73	60	5	3	102	67	29	3	39	6	31
26.	140	69	65	5	4	100	63	35	2	40	6	30
27.	119	48	65	5	1	81	41	38	1	38	7	27
28.	134	61	62	6	5	93	52	35	3	41	9	27
29.	87	41	40	3	3	69	34	29	3	18	7	11
30.	93	43	44	3	3	68	39	24	2	25	4	20
31.	72	32	33	4	3	54	29	21	1	18	3	12
32.	86	29	47	4	3	56	24	26	4	30	5	21
33.	71	35	32	2	2	52	31	19	2	19	4	13
34.	76	33	37	3	3	60	32	25	1	16	1	12
35.	82	29	48	3	2	57	28	27	2	25	1	21
36.	83	31	48	3	1	56	28	27	1	27	3	23
37.	52	23	23	4	2	47	22	21	2	5	1	2
38.	63	19	40	1	1	41	16	24	1	19	3	16
39.	42	15	22	4	1	30	13	13	1	12	2	9
40.	48	+ 18	27	2	1	35	15	20	1	13	3	7
41.	26	10	14	1	1	21	9	11	1	5	1	3
42.	40	9	26	3	2	27	8	16	1	13	5	10
43.	34	13	19	1	1	29	12	15	1	5	1	4
44.	21	10	10	1	1	16	9	6	1	5	1	4
45.	22	8	10	4	1	17	6	9	2	5	2	1
46.	16	3	11	1	1	11	3	7	1	5	4	1
47.	18	8	7	2	1	11	7	3	1	7	1	4
48.	24	5	16	2	1	17	5	10	2	7	1	6
49.	8	1	5	2	1	7	1	5	1	1	1	1
50.	21	7	13	1	1	19	7	12	2	2	1	1
51.	9	5	4	1	1	7	5	2	2	2	1	1
52.	15	5	9	1	1	11	5	5	1	4	1	3
53.	10	1	9	1	1	6	6	1	1	4	1	3
54.	6	2	4	1	1	2	1	1	1	4	1	1
55.	9	2	6	1	1	6	2	4	1	3	1	2
56.	10	4	6	1	1	7	4	3	1	3	1	3
57.	8	2	5	1	1	7	2	4	1	1	1	2
58.	7	1	6	1	1	5	1	4	1	2	1	1
59.	3	1	1	1	1	2	1	1	1	1	1	1
60.	6	1	2	1	1	2	1	1	1	4	1	4
61.	5	2	1	1	1	4	2	1	1	1	1	1
62.	1	1	3	1	1	1	1	1	1	1	1	1
63.	7	3	3	1	1	7	3	3	1	1	1	1
64.	3	1	2	1	1	3	1	2	1	1	1	1
65.	1	1	1	1	1	1	1	1	1	1	1	1
66.	1	1	1	1	1	1	1	1	1	1	1	1
67.	2	1	2	1	1	2	1	2	1	1	1	1
68.	69.											
70.	70.											
71.	2	2				2	2					
72.	1		1			1				1		
73.	73.											
74.	74.											
75.	75.											
76.	76.											
77.	77.											
78.	78.											
79.	79.											
80.	80.	1	1			1	1					

**TABLE D.—Number of cases of chancroid reported to Indiana State Health Department among white persons during the period Jan. 1, 1918, to Mar. 1, 1920, by single years of age, and by sex and marital condition.**

December 24, 1920.

**TABLE D.**—Number of cases of chancroid reported to Indiana State Health Department among white persons during the period Jan. 1, 1918, to Mar. 1, 1920, by single years of age, and by sex and marital condition—Continued.

## DEATHS DURING WEEK ENDED DEC. 11, 1920.

[From the "Weekly Health Index," Dec. 14, 1920, issued by the Bureau of the Census, Department of Commerce.]

*Deaths from all causes in certain large cities of the United States during the week ended Dec. 11, 1920, infant mortality (per cent), annual death rate, and comparison with corresponding week of preceding years.*

City.	Population Jan. 1, 1920, sub- ject to revision.	Week ended Dec. 11, 1920.		Average annual death rate per 1,000. <sup>2</sup>	Per cent of deaths under 1 year.	
		Total deaths.	Death rate. <sup>1</sup>		Week ended Dec. 11, 1920.	Previous year or years. <sup>3</sup>
Akron, Ohio.....	208,435	30	7.5	11.9	23.3	12.1
Albany, N. Y.....	113,344	29	13.3	C 17.6	C 7.9	
Atlanta, Ga.....	200,616	77	20.0	C 15.0	C 14.0	
Baltimore, Md.....	733,826	210	14.9	A 16.6	17.1	A 13.7
Birmingham, Ala.....	178,270	46	13.5	A 17.9	10.9	A 16.2
Boston, Mass.....	747,923	197	13.7	A 16.5	14.2	A 14.2
Bridgeport, Conn.....	143,152	35	12.7	A 15.1	20.0	A 18.5
Buffalo, N. Y.....	506,775	140	14.4	C 12.3	17.1	C 14.3
Cambridge, Mass.....	109,456	39	18.6	A 15.1	23.1	A 14.7
Chicago, Ill.....	2,701,705	584	11.3	A 13.0	14.7	A 16.0
Cincinnati, Ohio.....	401,247	118	15.3	C 16.3	6.8	C 9.8
Cleveland, Ohio.....	796,836	149	9.8	C 11.4	11.4	C 11.0
Columbus, Ohio.....	237,031	75	16.5	C 14.0	8.0	C 9.5
Dayton, Ohio.....	153,830	33	11.2	C 13.0	12.1	C 10.5
Denver, Colo.....	256,491	78	15.9	A 14.6	3.8	
Detroit, Mich.....	993,739	195	10.2	.....	22.1	
Fall River, Mass.....	120,485	36	15.6	C 11.7	11.1	C 14.8
Grand Rapids, Mich.....	137,634	35	13.3	C 12.2	14.3	C 12.5
Hartford, Conn.....	138,696	34	12.8	.....	2.9	
Houston, Tex.....	138,756	36	13.6	.....	16.7	
Indianapolis, Ind.....	314,194	74	12.3	C 12.4	9.5	C 10.8
Jersey City, N. J.....	298,079	68	11.9	C 14.2	13.2	C 17.3
Kansas City, Kans.....	101,177	22	11.3	.....	4.5	
Los Angeles, Calif.....	576,673	157	14.2	A 15.3	12.7	A 8.2
Louisville, Ky.....	231,891	46	10.2	C 15.6	8.7	C 11.4
Lowell, Mass.....	112,479	22	10.2	A 16.2	31.8	A 15.1
Milwaukee, Wis.....	437,147	102	11.6	A 12.2	13.7	C 17.9
Minneapolis, Minn.....	380,582	69	9.5	C 11.9	14.5	C 15.1
Nashville, Tenn.....	118,342	53	23.4	C 22.5	17.0	C 11.8
Newark, N. J.....	414,216	96	12.1	C 11.6	11.5	C 14.3
New Bedford, Mass.....	121,217	25	10.8	A 15.2	8.0	A 25.0
New Haven, Conn.....	162,519	41	13.2	C 15.9	9.8	C 22.4
New Orleans, La.....	387,219	140	18.9	A 22.7	7.9	A 10.9
New York, N. Y.....	5,620,643	1,144	10.6	C 12.0	14.0	C 15.2
Norfolk, Va.....	115,777	33	14.9	.....	18.2	
Oakland, Calif.....	216,361	46	11.1	A 12.1	4.3	A 11.2
Omaha, Nebr.....	191,601	25	6.8	C 8.0	16.0	C 34.5
Philadelphia, Pa.....	1,823,158	448	12.8	18.2	18.3	14.1
Pittsburgh, Pa.....	588,193	145	12.9	C 16.2	13.1	C 18.7
Portland, Oreg.....	258,288	57	11.5	C 8.0	7.0	C 15.4
Providence, R. I.....	237,595	71	15.6	C 13.2	7.0	C 11.7
Richmond, Va.....	171,667	67	20.4	C 11.7	11.9	C 18.4
Rochester, N. Y.....	265,750	59	10.4	C 12.5	11.9	C 4.3
St. Louis, Mo.....	772,997	162	10.9	C 14.0	10.5	C 10.1
St. Paul, Minn.....	234,680	49	10.9	C 8.9	10.2	C 7.5
Salt Lake City, Utah.....	118,119	25	11.0	A 12.7	16.0	
San Francisco, Calif.....	506,676	172	17.7	C 12.9	4.1	C 9.7
Seattle, Wash.....	315,652	52	8.6	A 10.5	13.5	A 11.7
Springfield, Mass.....	129,338	37	14.9	.....	21.6	
Syracuse, N. Y.....	171,647	41	12.5	C 14.7	17.1	C 20.8
Toledo, Ohio.....	243,164	56	12.0	A 15.0	8.9	A 13.0
Trenton, N. J.....	119,289	40	17.5	A 19.6	12.5	A 11.8
Washington, D. C.....	437,571	134	16.0	A 14.9	14.9	A 10.6
Wilmington, Del.....	110,168	28	13.3	C 12.0	14.3	
Worcester, Mass.....	179,754	53	15.4	C 17.0	15.1	C 20.7
Yonkers, N. Y.....	100,176	24	12.5	A 12.1	12.5	A 24.3
Youngstown, Ohio.....	132,358	27	10.6	.....	11.1	

<sup>1</sup> Annual rates per 1,000 population.

<sup>2</sup> "A" indicates data for the corresponding week of the years 1913 to 1917, inclusive. "C" indicates data for the corresponding week of the year 1919.

<sup>3</sup> Data are based on statistics of 1915, 1916, and 1917.

*Summary of information received by telegraph from industrial insurance companies for week ended Dec. 11, 1920.*

Policies in force.....	45,447,417
Number of death claims.....	8,446
Death claims per 1,000 policies in force, annual rate.....	9.7

# PREVALENCE OF DISEASE.

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.*

## UNITED STATES.

### CURRENT STATE SUMMARIES.

#### Telegraphic Reports for Week Ended Dec. 18, 1920.

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers.

ALABAMA.	Cases.	CONNECTICUT.	Cases.		
Cerebrospinal meningitis.....	1	Cerebrospinal meningitis.....	1		
Chicken pox.....	17	Chicken pox.....	35		
Diphtheria.....	15	Conjunctivitis (infectious).....	1		
Hookworm.....	41	Diphtheria:			
Measles.....	9	Bristol.....	12		
Ophthalmia neonatorum.....	1	Hartland.....	16		
Scarlet fever.....	10	New Haven.....	11		
Smallpox.....	60	Norwalk.....	10		
Tuberculosis.....	12	Orange.....	8		
Typhoid fever.....	20	Scattering.....	191		
Whooping cough.....	5	German measles.....	2		
ARKANSAS.					
Cerebrospinal meningitis.....	1	Influenza.....	3		
Chicken pox.....	20	Malaria.....	6		
Diphtheria.....	29	Measles:			
Influenza.....	24	Ansonia.....	10		
Malaria.....	30	New Britain.....	9		
Measles.....	39	Scattering.....	21		
Pellagra.....	9	Mumps.....	38		
Scarlet fever.....	17	Pneumonia (lobar).....	28		
Smallpox.....	4	Scarlet fever:			
Trachoma.....	2	Bridgeport.....	17		
Tuberculosis.....	15	Meriden (city).....	10		
Typhoid fever.....	4	New Haven.....	20		
CALIFORNIA.					
Cerebrospinal meningitis:		Waterbury.....	10		
Fullerton.....	1	Scattering.....	85		
San Francisco.....	4	Tetanus.....	1		
Influenza.....	15	Trachoma.....	4		
Smallpox:		Tuberculosis (all forms).....	58		
Alameda County.....	11	Typhoid fever.....	3		
Monterey.....	8	Whooping cough.....	106		
Oxnard.....	7	DELAWARE.			
Sacramento.....	8	Chicken pox.....	5		
San Francisco.....	29	Diphtheria.....	9		
Scattering.....	28	Influenza.....	8		
Typhoid fever.....	7	Mumps.....	2		
		Measles.....	3		
		Pneumonia.....	3		
		Scarlet fever.....	14		
		Tuberculosis.....	5		
		Typhoid fever.....	3		
		Whooping cough.....	24		

FLORIDA.	Cases.	IOWA.	Cases.
Diphtheria.....	11	Cerebrospinal meningitis:	1
Influenza.....	21	Dayton.....	1
Malaria.....	43	Burlington.....	1
Pneumonia.....	13	Diphtheria.....	35
Poliomyelitis.....	1	Influenza.....	5
Scarlet fever.....	10	Scarlet fever.....	86
Smallpox.....	19	Smallpox:	
Typhoid fever.....	20	Dubuque.....	22
		Hiteman.....	11
GEORGIA.		Ottumwa.....	29
Chicken pox.....	45	Scattering.....	92
Diphtheria.....	24	KANSAS.	
Dysentery (bacillary).....	4	Chicken pox.....	56
Hookworm.....	135	Diphtheria.....	203
Influenza.....	16	German measles.....	2
Malaria.....	18	Influenza.....	13
Measles.....	15	Measles.....	201
Mumps.....	8	Mumps.....	4
Pneumonia.....	10	Pneumonia.....	44
Scarlet fever.....	22	Poliomyelitis.....	1
Septic sore throat.....	3	Scarlet fever.....	196
Smallpox.....	43	Smallpox.....	81
Tetanus.....	1	Tuberculosis.....	30
Trachoma.....	1	Typhoid fever.....	11
Tuberculosis (pulmonary).....	13	Whooping cough.....	58
Typhoid fever.....	11	LOUISIANA.	
Whooping cough.....	12	Diphtheria.....	16
		Scarlet fever.....	7
ILLINOIS.		Smallpox.....	60
Diphtheria:		Typhoid fever.....	15
Chicago.....	268	MAINE.	
East St. Louis.....	11	Chicken pox.....	52
Evanston.....	15	Diphtheria.....	14
Scattering.....	112	German measles.....	1
Influenza.....	23	Influenza.....	4
Lethargic encephalitis—Aurora.....	1	Measles.....	180
Pneumonia.....	142	Mumps.....	13
Poliomyelitis:		Pneumonia.....	5
Clinton.....	1	Poliomyelitis—Waterville.....	1
New Holland.....	1	Scarlet fever.....	14
Streator.....	1	Septic sore throat.....	2
Villa Grove.....	1	Smallpox.....	6
Scarlet fever:		Tuberculosis.....	6
Berwyn.....	8	Typhoid fever.....	9
Chicago.....	149	Whooping cough.....	15
Springfield.....	56	MARYLAND. <sup>1</sup>	
Scattering.....	115	Cerebrospinal meningitis.....	1
Smallpox:		Chicken pox.....	92
Chicago.....	10	Diphtheria.....	101
East St. Louis.....	18	Influenza.....	47
Jackson County—Sandridge Township.....	13	Measles.....	74
Madison.....	10	Mumps.....	4
Olney.....	9	Ophthalmia neonatorum.....	4
Rockford.....	13	Pneumonia (all forms).....	95
Virginia.....	31	Scarlet fever.....	86
Scattering.....	71	Septic sore throat.....	3
Typhoid fever.....	12	Tuberculosis.....	46
		Typhoid fever.....	19
INDIANA.		Vincent's angina.....	1
Diphtheria.....	102	Whooping cough.....	52
Scarlet fever.....	236		
Smallpox.....	141		
Typhoid fever.....	22		
(Epidemic Anderson.)			

<sup>1</sup> Week ended Friday.

December 24, 1920.

MASSACHUSETTS.		NEW MEXICO—continued.	
	Cases.		Cases.
Cerebrospinal meningitis.....	4	Scarlet fever.....	13
Chicken pox.....	234	Smallpox.....	1
Conjunctivitis (suppurative).....	7	Tuberculosis.....	18
Diphtheria.....	213	Typhoid fever.....	8
German measles.....	18	Whooping cough.....	3
Influenza.....	32		
Measles.....	407	NEW YORK.	
Mumps.....	51	(Exclusive of New York City.)	
Ophthalmia neonatorum.....	14	Cerebrospinal meningitis—Schenectady.....	1
Pneumonia (lobar).....	96	Diphtheria.....	424
Poliomyelitis.....	3	Influenza.....	23
Scarlet fever.....	236	Measles.....	855
Smallpox.....	10	Pneumonia.....	229
Trachoma.....	1	Poliomyelitis—Syracuse.....	1
Tuberculosis (all forms).....	208	Scarlet fever.....	292
Typhoid fever.....	8	Smallpox.....	3
Whooping cough.....	122	Tetanus.....	1
		Typhoid fever.....	27
MINNESOTA.		Whooping cough.....	414
MISSISSIPPI.		NORTH CAROLINA.	
Diphtheria.....	29	Chicken pox.....	78
Scarlet fever.....	20	Diphtheria.....	82
Smallpox.....	17	German measles.....	3
Typhoid fever.....	19	Measles.....	112
		Poliomyelitis.....	1
MONTANA.		Scarlet fever.....	39
Diphtheria.....	4	Septic sore throat.....	9
Poliomyelitis—Crow Agency.....	1	Smallpox.....	36
Scarlet fever.....	6	Trachoma.....	1
Smallpox.....	10	Typhoid fever.....	12
Typhoid fever.....	1	Whooping cough.....	107
NEBRASKA.		SOUTH DAKOTA.	
Chicken pox.....	35	Actinomycosis.....	1
Diphtheria.....	26	Chicken pox.....	6
Measles.....	3	Diphtheria.....	17
Scarlet fever:		Influenza.....	6
Gage County.....	9	Measles.....	36
Scattering.....	45	Pneumonia.....	10
Smallpox:		Scarlet fever.....	37
Antelope County.....	18	Smallpox.....	51
Omaha.....	13	Tuberculosis.....	1
Scattering.....	43	Typhoid fever.....	1
Tuberculosis.....	1		
Typhoid fever.....	3	TEXAS.	
Whooping cough.....	2	Chicken pox.....	24
		Diphtheria.....	54
NEW JERSEY.		Influenza.....	38
Cerebrospinal meningitis.....	1	Measles.....	12
Chicken pox.....	251	Scarlet fever.....	22
Diphtheria.....	229	Smallpox.....	7
Influenza.....	28	Trachoma.....	5
Measles.....	160	Typhoid fever.....	4
Pneumonia.....	175	Typhus fever—Galveston.....	1
Scarlet fever.....	185		
Trichinosis.....	3	VERMONT.	
Typhoid fever.....	12	Chicken pox.....	49
Whooping cough.....	152	Diphtheria.....	11
		Influenza.....	6
NEW MEXICO.		Measles.....	31
Chicken pox.....	10	Mumps.....	33
Diphtheria.....	25	Pneumonia.....	7
Measles.....	36	Scarlet fever.....	17
Mumps.....	23	Smallpox.....	3
Pneumonia.....	10	Typhoid fever.....	4
Puerperal septicemia.....	3	Whooping cough.....	70

VIRGINIA.		WISCONSIN.	
	Cases.		Cases.
Smallpox—Bedford County	4	Milwaukee:	
WEST VIRGINIA.			
Cerebrospinal meningitis—Charleston	1	Chicken pox	52
Diphtheria:		Diphtheria	73
Wheeling	9	Influenza	2
Scattering	25	Measles	4
Measles:		Scarlet fever	41
Charleston	15	Smallpox	8
Morgantown	18	Tuberculosis	12
Scattering	6	Whooping cough	18
Scarlet fever:		Scattering:	
Wheeling	8	Cerebrospinal meningitis	1
Scattering	15	Chicken pox	123
Smallpox:		Diphtheria	105
Clarksburg	8	German measles	1
Sistersville	17	Influenza	31
Scattering	3	Measles	48
Typhoid fever	5	Poliomyelitis	1
		Scarlet fever	121
		Smallpox	164
		Tuberculosis	13
		Typhoid fever	7
		Whooping cough	179

## District of Columbia and Kentucky Reports for Week Ended Dec. 11, 1920.

DISTRICT OF COLUMBIA.		Measles:	
	Cases.		Cases.
Chicken pox	40	Harlan County	16
Diphtheria	24	Scattering	4
Influenza	25	Mumps	2
Measles	7	Pneumonia	37
Scarlet fever	28	Scarlet fever:	
Smallpox	1	Campbell County	12
Tuberculosis	22	Jefferson County	12
Typhoid fever	10	Scattering	19
Whooping cough	10	Septic sore throat	4
KENTUCKY.		Smallpox:	
Cerebrospinal meningitis:		Bell County	10
Grant County	1	Carlisle County	14
Rowan County	1	Daviess County	14
Chicken pox	38	Pike County	10
Diphtheria:		Scattering	18
Jefferson County	24	Tonsilitis	5
Scattering	39	Trachoma	3
German measles	1	Tuberculosis:	
Influenza	20	Jefferson County	8
		Scattering	15
		Typhoid fever	20
		Whooping cough	23

December 24, 1920.

**SUMMARY OF CASES REPORTED MONTHLY BY STATES.**

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State.	Cerebrospinal meningitis.	Diphtheria.	Influenza.	Malaria.	Measles.	Pellagra.	Polyomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
	1920.									
Arizona (November).....		7			12			14	5	4
Arkansas (October).....	248	62	1,073	95	31		114	18	166	
Connecticut (November).....	5	549	68	373		9	408			41
Louisiana (November).....	7	118	45	114	171	20	1	57	86	44
Michigan (November).....	1,574				183		15	1,229	306	223
Montana (October).....		31	6		687		10	112	59	34
Nebraska (November).....	3	155	4		23		2	162	194	11
West Virginia (November).....	5	378	116		219		4	229	110	79

**ANTHRAX.****Georgia, Nebraska, New York, and West Virginia.**

During November, 1920, one case of anthrax was reported in West Virginia. During the week ended December 4, 1920, there were reported one case and one death at Savannah, Ga., one case and one death at Omaha, Nebr., and one case at New York, N. Y.

**CEREBROSPINAL MENINGITIS.****City Reports for Week Ended Dec. 4, 1920.**

The column headed "Average cases" gives the average number of cases reported during the corresponding weeks of the years 1915 to 1919, inclusive. In instances in which the information is not available for the full five years, the average includes from one to four years.

Place.	Aver- age cases.	1920		Place.	Aver- age cases.	1920	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Missouri:			
Montgomery.....	0		1	Kansas City.....	(1)	1	1
Arkansas:				St. Louis.....	(1)	3	1
Little Rock.....	0	2		New York:			
Connecticut:				Glens Falls.....			
Meriden.....	1		1	New York.....	4	5	5
District of Columbia:				Ohio:			
Washington.....	0	1	1	Akron.....	0	1	
Illinois:				Cleveland.....	(1)	1	
Chicago.....	2	5	1	Pennsylvania:			
Indiana:				Philadelphia.....	1	2	2
Evansville.....	0		1	Sharon.....		1	
Massachusetts:				Rhode Island:			
Arlington.....	0	1	1	Pawtucket.....	(1)		1
Boston.....	(1)	1	2	South Carolina:			
Lynn.....	0		1	Columbia.....	0	2	
New Bedford.....	0		1	Texas:			
Michigan:				Galveston.....	0	1	1
Detroit.....	(1)	2		Utah:			
Minnesota:				Salt Lake City.....	0	1	
Duluth.....	0	2	1	Wisconsin:			
				Milwaukee.....	1	1	

<sup>1</sup> Average less than 1.

## INFLUENZA.

## City Reports for Week Ended Dec. 4, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alabama:			Minnesota:		
Aniston.....	1	2	Minneapolis.....	2	1
Birmingham.....	2		Missouri:		
Montgomery.....	2		Kansas City.....	6	2
California:			St. Louis.....	8	1
Alameda.....	3		New Jersey:		
Los Angeles.....	5		Garfield.....	1	
Oakland.....	2	2	Jersey City.....	2	
San Francisco.....	8	3	Newark.....	3	
Colorado:			Trenton.....	4	
Denver.....	1		New Mexico:		
Connecticut:			Albuquerque.....	1	
Hartford.....	3	1	New York:		
New Britain.....	4		Albany.....	2	
District of Columbia:			Buffalo.....	1	1
Washington.....	4	1	Jamestown.....	4	
Georgia:			New York.....	51	8
Atlanta.....	5		Ohio:		
Illinois:			Cincinnati.....	1	
Chicago.....	22	3	Cleveland.....	3	1
East St. Louis.....	2		Fremont.....	1	
Ia Salle.....	5		Springfield.....	1	
Indiana:			Oklahoma:		
East Chicago.....	1		Oklahoma City.....	1	
Terre Haute.....	1		Pennsylvania:		
Iowa:			Philadelphia.....	2	1
Council Bluffs.....	1		South Dakota:		
Kansas:			Sioux Falls.....	1	
Coffeyville.....	2	1	Texas:		
Wichita.....	1		Dallas.....	4	1
Kentucky:			Utah:		
Louisville.....	1		Salt Lake City.....	1	1
Maryland:			Virginia:		
Baltimore.....	8		Roanoke.....	1	
Cumberland.....	4		West Virginia:		
Massachusetts:			Fairmont.....	2	
Boston.....	2	1	Wisconsin:		
Waltham.....	6		Pelot.....	1	
Worcester.....	1		Green Bay.....	1	
Michigan:			Milwaukee.....	1	
Detroit.....	4	1	Oshkosh.....	1	
Flint.....	1		Wausau.....	2	

## LETHARGIC ENCEPHALITIS.

## California, Connecticut, and New Jersey.

During November, 1920, one case of lethargic encephalitis was reported in Connecticut. During the week ended December 4, 1920, two cases were reported at San Francisco, Calif., and one case was reported at Jersey City, N. J.

## MALARIA.

## City Reports for Week Ended Dec. 4, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alabama:			Indiana:		
Birmingham.....		1	Evansville.....		
Mobile.....		1	Louisiana:		
Arkansas:			Monroe.....	1	1
Little Rock.....	2		New Orleans.....		
California:			South Carolina:		
San Francisco.....	1		Charleston.....		
Georgia:			Texas:		
Atlanta.....	4		Dallas.....	3	2
Savannah.....	1				

December 24, 1920.

**PELLAGRA.****City Reports for Week Ended Dec. 4, 1920.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alabama: Montgomery.....		2	South Carolina: Charleston.....		1
Georgia: Brunswick.....	1		Texas: Dallas.....		2
Louisiana: New Orleans.....		1	Virginia: Richmond.....		1
North Carolina: Winston-Salem.....	1	1			

**PLAQUE.****Human Cases of Plague Reported.**

Place.	Period covered.	Cases.	Deaths.	Remarks.
Florida: Pensacola.....	1920, May 31 to Aug. 31..... Sept. 1 to Dec. 18.....	10 0	4 0	
Louisiana: New Orleans.....	1919, Oct. 22 to Dec. 31.....	12	4	
	1920, Jan. 1 to Apr. 30..... May 1 to Aug. 31..... Sept. 1 to Dec. 18.....	0 7 0	0 3 0	
Texas: Beaumont.....	June 19 to Aug. 20..... Aug. 21 to Dec. 18.....	14 0	5 0	
Galveston.....	June 8 to Nov. 14..... Nov. 15 to Dec. 18.....	17 0	11 0	
Port Arthur.....	July 7.....	1	1	From Galveston.

**Plague-Infected Rodents.**

Place.	Period covered.	Rodents found plague infected.
Florida: Pensacola.....	1920, June 28 to Sept. 19..... Sept. 29 to Dec. 18.....	31 0
Louisiana: New Orleans.....	1919, November and December.....	308
	1920, January to November..... Dec. 1 to 11..... Dec. 12 to 20.....	269 4 1
Texas: Beaumont.....	July 1 to Oct. 25..... Oct. 26 to Dec. 18.....	123 0
Galveston.....	June 21 to Dec. 4..... Dec. 5 to 18.....	67 0
Port Arthur.....	Oct. 25.....	1

## PNEUMONIA (ALL FORMS).

## City Reports for Week Ended Dec. 4, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alabama:			Kentucky:		
Aniston.....	1		Covington.....		1
Birmingham.....		2	Lexington.....		1
Mobile.....		1	Louisville.....	9	8
Montgomery.....	1	3	Louisiana:		
Arizona:			New Orleans.....		12
Tucson.....	1		Maine:		
Arkansas:			Auburn.....		1
Little Rock.....	2		Bangor.....	2	
North Little Rock.....		1	Biddeford.....		1
California:			Portland.....		
Alameda.....	1	1	Sanford.....	4	2
Eureka.....			Waterville.....	1	
Fresno.....			Maryland:		
Long Beach.....	2	1	Baltimore.....	41	15
Los Angeles.....	40	15	Cumberland.....	1	
Oakland.....	6		Massachusetts:		
Riverside.....			Arlington.....	1	
Sacramento.....		2	Boston.....	33	23
San Diego.....	3	4	Brookline.....	2	
San Francisco.....	12	4	Cambridge.....	5	1
Santa Cruz.....	1	1	Chelsea.....	1	1
Colorado:			Clinton.....	2	
Colorado Springs.....			Dedham.....	1	
Denver.....		13	Everett.....		1
Connecticut:			Fall River.....		5
Bridgeport.....	1	5	Gardner.....		
Bristol.....	3	1	Haverhill.....	3	2
Greenwich.....	1		Holbrook.....		3
Hartford.....	4	7	Lawrence.....	3	
Manchester.....	1		Leominster.....	1	1
Meriden.....	2	1	Lowell.....	3	8
New Britain.....	1	4	Lynn.....	1	1
New Haven.....			Medford.....		1
New London.....		11	New Bedford.....	1	2
Waterbury.....	5	6	Newburyport.....		1
District of Columbia:			Newton.....	6	3
Washington.....		9	North Attleboro.....	1	1
Georgia:			Peabody.....	1	1
Atlanta.....		9	Pittsfield.....	1	1
Savannah.....		9	Quincy.....		2
Illinois:			Salem.....		2
Chicago.....	201	56	Somer ille.....	2	1
Decatur.....		1	Southbridge.....		1
East St. Louis.....	2	2	Springfield.....	2	1
Elgin.....	1	3	Taunton.....	2	
Galesburg.....		2	Waltham.....	1	3
Jacksonville.....		4	Worcester.....	4	5
Kankakee.....		1	Michigan:		
La Salle.....	2		Ann Arbor.....	1	3
Oak Park.....	2	1	Benton Harbor.....	1	1
Peoria.....		6	Detroit.....	53	27
Rockford.....	1	1	Grand Rapids.....	6	2
Rock Island.....	3	1	Ironwood.....	1	
Springfield.....			Ishpeming.....	6	1
Indiana:			Marquette.....	3	
Bradley.....			Pontiac.....	1	
East Chicago.....		4	Port Huron.....	3	
Elihart.....		1	Sault Ste. Marie.....	1	1
Elwood.....			Minnesota:		
Evansville.....		7	Duluth.....	1	2
Fort Wayne.....		2	Hibbing.....		1
Gary.....		2	Minneapolis.....		10
Hammond.....		3	St. Paul.....		9
Indianapolis.....			Missouri:		
Kenosha.....		2	Cape Girardeau.....	1	1
Marion.....		1	Jefferson City.....		1
Mishawaka.....		1	Kansas City.....	9	13
Richmond.....	1	2	St. Joseph.....		3
Terre Haute.....		5	Montana:		
Iowa:			Butte.....		2
Burlington.....	1	1	Great Falls.....	1	
Council Bluffs.....		1	Nebraska:		
Kansas:			Lincoln.....	3	1
Fort Scott.....			Omaha.....		6
Kansas City.....	9		New Hampshire:		
Parsons.....	2		Concord.....		1
Topeka.....	2	2	Keene.....	1	
Wichita.....	1	4	Manchester.....		1

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**PNEUMONIA (ALL FORMS)—Continued.**  
**City Reports for Week Ended Dec. 4, 1920—Continued.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.			
<b>New Jersey:</b>								
Atlantic City	2	1	Ohio—Continued.					
Bayonne	3		Canton		4			
Bloomfield	2		Cincinnati	2	11			
Elizabeth		1	Cle eland	26	8			
Englewood	1		Column us		4			
Garfield	1		Dayton	2				
Glocester	1		Hamilton		2			
Hackensack	4		Lima		2			
Harrison	1		Mansfield	2	1			
Hoboken	1	3	Ne vark	1				
Jersey City	8		Spring field		3			
Kearny	2		Tiffin		1			
Montclair		1	Toledo		6			
Morristown		1	Youngstown		4			
Newark	65	15	Zanesville		1			
Orange	1	4	<b>Oklahoma:</b>					
Passaic	5	2	Oklahoma City		4			
Paterson	3		Tulsa	2				
Perth Amboy		4	<b>Oregon:</b>					
Plainfield		3	Portland		3			
Trenton	12	2	Pennsyl ania:					
West Hoboken	1		Philadelphia	112	67			
West New York			Rhode Island:					
West Orange	1		Pawtucket		2			
<b>New York:</b>			Providence		5			
Albany	11		<b>South Carolina:</b>					
Buffalo	28	11	Charleston		3			
Elmira	1	1	South Dakotah					
Glens Falls	3		Sioux Falls		1			
Ithaca		1	<b>Tennessee:</b>					
Jamestown	2		Memphis		7			
Lockport	1		Nashville		2			
Mount Vernon	10	2	<b>Texas:</b>					
New York	356	151	Beaumont	1	3			
Niagara Falls	3	3	Dallas	8	5			
Olean		1	El Paso		5			
Peekskill	2	1	Galveston		1			
Poughkeepsie	2		<b>Utah:</b>					
Rochester	11	1	Salt Lake City		2			
Rome	3		<b>Virginia:</b>					
Saratoga Springs		1	Richmond	1	5			
Schenectady	8		Roanoke	3				
Syracuse	6	3	<b>West Virginia:</b>					
Troy	7	2	Charleston		1			
White Plains	4		Wheeling		2			
Yonkers	4	2	<b>Wisconsin:</b>					
<b>North Carolina:</b>			Beloit	1				
Charlotte		3	Green Bay		2			
Greensboro		1	Janes ille		1			
Winston-Salem		1	Kenosha		1			
<b>Ohio:</b>			Milwaukee	14	11			
Akron	2		Superior		1			
			Wausau	1	1			

**POLIOMYEITIS (INFANTILE PARALYSIS).**

**City Reports for Week Ended Dec. 4, 1920.**

The column headed "Average cases" gives the average number of cases reported during the corresponding weeks of the years 1915 to 1919, inclusive. In instances in which the information is not available for the full five years, the average includes from one to four years.

Place.	Aver-	1920		Place.	Aver-	1920	
		age	cases.			age	cases.
Massachusetts:				New York:			
Boston	(1)	1	1	New York	2	3	1
Medford	(1)			Ohio:			
Quincy	0	1		Cleveland	(1)	1	
Somerville	(1)	1		Rhode Island:			
Michigan:				Providence	0	1	
Detroit	6		1				
New Jersey:							
Kearny	0	1					

<sup>1</sup> Average less than 1.

<sup>2</sup> Excluding 1916, an epidemic year.

## RABIES IN ANIMALS.

Rome, Ga.—Week Ended Dec. 4, 1920.

During the week ended December 4, 1920, one case of rabies in animals was reported at Rome, Ga.

## SMALLPOX.

## City Reports for Week Ended Dec. 4, 1920.

The column headed "Average cases" gives the average number of cases reported during the corresponding weeks of the years 1915 to 1919, inclusive. In instances in which the information is not available for the full five years, the average includes from one to four years.

Place.	Aver- age cases.	1920		Place.	Aver- age cases.	1920	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Minnesota:			
Birmingham.....	(1)	1	.....	Duluth.....	(1)	5	.....
Mobile.....	0	2	.....	Mankato.....	0	9	.....
Montgomery.....	0	3	.....	Minneapolis.....	10	83	.....
California:				St. Cloud.....	7	1	.....
Oakland.....	2	3	.....	St. Paul.....	11	33	.....
Riverside.....	0	3	.....	Winona.....	0	20	.....
Sacramento.....	0	16	.....	Missouri:			
San Francisco.....	(1)	17	.....	Kansas City.....	18	8	.....
Santa Cruz.....	0	.....	1	St. Joseph.....	3	1	.....
Colorado:				St. Louis.....	1	3	.....
Colorado Springs.....	0	1	.....	Montana:			
Denver.....	10	4	.....	Missoula.....	0	6	.....
Pueblo.....	0	1	.....	Nebraska:			
Georgia:				Lincoln.....	4	2	.....
Atlanta.....	2	12	.....	Nevada:			
Idaho:				Reno.....	0	3	.....
Boise.....	3	3	.....	North Carolina:			
Illinois:				Charlotte.....	0	2	.....
Chicago.....	(1)	4	.....	Durham.....	0	1	.....
East St. Louis.....	0	9	.....	North Dakota:			
Evanston.....	0	1	.....	Fargo.....	0	14	.....
Galesburg.....	(1)	1	.....	Grand Forks.....	.....	6	.....
Granite City.....	0	1	.....	Ohio:			
Oak Park.....	0	1	.....	Akron.....	7	10	.....
Rockford.....	(1)	6	.....	Ashtabula.....	0	2	.....
Springfield.....	1	1	.....	Canton.....	(1)	4	.....
Indiana:				Chillicothe.....	1	1	.....
Bedford.....	0	6	.....	Cincinnati.....	(1)	1	.....
Elkhart.....	.....	1	.....	Cleveland.....	12	5	.....
Hammond.....	0	2	.....	Hamilton.....	.....	8	.....
Huntington.....	0	4	.....	Lancaster.....	0	2	.....
Indianapolis.....	10	2	.....	Lima.....	0	27	.....
Kokomo.....	5	9	.....	Lorain.....	1	29	.....
Marion.....	0	1	.....	Marion.....	1	1	.....
Mishawaka.....	(1)	15	.....	Springfield.....	(1)	2	.....
South Bend.....	3	36	.....	Steubenville.....	(1)	1	.....
Terre Haute.....	0	5	.....	Tiffin.....	0	3	.....
Town:				Toledo.....	1	5	.....
Cedar Rapids.....	(1)	1	.....	Oklahoma:			
Council Bluffs.....	3	1	.....	Tulsa.....	.....	1	.....
Davenport.....	13	5	.....	Oregon:			
Des Moines.....	1	1	.....	Portland.....	17	9	.....
Dubuque.....	(1)	28	.....	Salem.....	0	1	.....
Iowa City.....	0	1	.....	Pennsylvania:			
Marshalltown.....	7	1	.....	Butler.....	0	1	.....
Sioux City.....	2	47	.....	South Dakota:			
Kansas:				Sioux Falls.....	0	3	.....
Kansas City.....	10	4	.....	Tennessee:			
Leavenworth.....	(1)	1	.....	Nashville.....	0	3	.....
Louisiana:				Texas:			
New Orleans.....	1	39	2	Dallas.....	2	1	.....
Michigan:				Waco.....	0	1	.....
Detroit.....	10	36	.....	Utah:			
Muskegon.....	6	.....		Salt Lake City.....	2	23	.....
Port Huron.....	1	.....		Vermont:			
Sault Ste. Marie.....	0	3	.....	Rutland.....	0	4	.....

<sup>1</sup> Average less than 1.

December 24, 1920.

**SMALLPOX—Continued.****City Reports for Week Ended Dec. 4, 1920—Continued.**

Place.	Average cases.	1920		Place.	Average cases.	1920	
		Cases.	Deaths.			Cases.	Deaths.
Virginia:				West Virginia:			
Lynchburg.....	0	1	.....	Bluefield.....	(1)	1	.....
Washington:				Wisconsin:			
Aberdeen.....	0	5	.....	Appleton.....	0	2	.....
Bellingham.....	5	2	.....	Beloit.....	0	1	.....
Everett.....	(1)	1	.....	Eau Claire.....	(1)	1	.....
Seattle.....	7	25	.....	Milwaukee.....	(1)	5	.....
Spokane.....	25	40	.....	Sheboygan.....	2	12	.....
Tacoma.....	(1)	12	.....	Superior.....	(1)	16	.....
Walla Walla.....	8	5	.....				

<sup>1</sup> Average less than 1.**TETANUS.****City Reports for Week Ended Dec. 4, 1920.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Georgia:			Missouri:		
Savannah.....		1	St. Louis.....	1	.....
Kansas:			New York:		
Parsons.....	1	.....	New York.....		1
Kentucky:			North Carolina:		
Louisville.....		1	Winston-Salem.....		1
Massachusetts:					
Springfield.....	1	.....			

**TYPHOID FEVER.****City Reports for Week Ended Dec. 4, 1920.**

The column headed "Average cases" gives the average number of cases reported during the corresponding weeks of the years 1915 to 1919, inclusive. In instances in which the information is not available for the full five years, the average includes from one to four years.

Place.	Average cases.	1920		Place.	Average cases.	1920	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Illinois:			
Birmingham.....	5	1	1	Chicago.....	10	7	1
Mobile.....	(1)			Kankakee.....	0	1	.....
Montgomery.....	0	1	.....	Kewanee.....	0	1	1
Arkansas:				Mattoon.....	0	1	.....
Fort Smith.....	0	4	.....	Rockford.....	(1)		1
Hot Springs.....	0	1	.....	Indiana:			
Little Rock.....	(1)	1	.....	East Chicago.....	1		1
California:				Elwood.....	0	1	.....
Long Beach.....	0	2	.....	Evansville.....	(1)		1
Los Angeles.....	3	2	.....	Fort Wayne.....	0	1	1
Oakland.....	(1)	2	1	Indianapolis.....	(1)	2	.....
Sacramento.....	(1)	1	.....	Terre Haute.....	1	1	.....
Connecticut:				Iowa:			
Bridgeport.....	0	1	1	Keokuk.....			1
New Haven.....	(1)	2	1	Muscatine.....	(1)	1	.....
Norwich.....	0	1	.....	Kansas:			
Waterbury.....	0	1	.....	Kansas City.....	0	2	.....
District of Columbia:				Topeka.....	0	1	1
Washington.....	8	5	1	Kentucky:			
Georgia:				Lexington.....	1	1	.....
Atlanta.....	(1)	1	.....	Louisville.....	3	1	.....
Rome.....	0	1	.....				

<sup>1</sup> Average less than 1.

## TYPHOID FEVER—Continued.

## City Reports for Week Ended Dec. 4, 1920—Continued.

Place.	Average cases.	1920		Place.	Average cases.	1920	
		Cases.	Deaths.			Cases.	Deaths.
Louisiana:				New York—Continued.			
New Orleans.....	3	2	1	Troy.....	(1)		1
Maine:				Watertown.....	2	1	.....
Bangor.....	0	1	.....	Ohio:			
Portland.....	1	4	.....	Akron.....	3	1	.....
Maryland:				Canton.....	(1)	1	.....
Baltimore.....	10	1	1	Cincinnati.....	(1)	1	.....
Cumberland.....	(1)	4	.....	Cleveland.....	2	2	1
Massachusetts:				Columbus.....	2		2
Adams.....	0	1	.....	Mansfield.....		1	.....
Arlington.....	1	2	.....	Newark.....	0	1	.....
Attleboro.....	(1)	2	.....	Tiffin.....	0		1
Boston.....	2	3	.....	Oklahoma:			
Brookline.....	0	1	.....	Oklahoma City.....	1	1	.....
Chelsea.....	(1)	1	.....	Tulsa.....	2		.....
New Bedford.....	2	2	.....	Oregon:			
Michigan:				Portland.....	2	2	1
Detroit.....	3	4	.....	Pennsylvania:			
Marquette.....	0	1	.....	Allentown.....	(1)	1	.....
Port Huron.....	0	1	.....	Altona.....	(1)	1	.....
Minnesota:				Easton.....	0	1	.....
Duluth.....	2	1	.....	Harrisburg.....	(1)	1	.....
Minneapolis.....	2	5	.....	Johnstown.....	1	1	.....
St. Paul.....	(1)	2	.....	Lancaster.....	(1)	1	.....
Missouri:				Philadelphia.....	9	8	1
Joplin.....	0	1	.....	Pittsburgh.....	2		.....
Kansas City.....	1	1	1	Washington.....	(1)	2	.....
St. Charles.....		1	1	Rhode Island:			
St. Louis.....	9	1	.....	Providence.....	(1)	1	.....
Nebraska:				South Carolina:			
Omaha.....	0	1	1	Charleston.....	1	1	.....
New Hampshire:				Columbia.....	0	2	.....
Berlin.....	0		1	South Dakota:			
Concord.....	1		.....	Sioux Falls.....	0		1
New Jersey:				Tennessee:			
Jersey City.....	(1)	1	.....	Memphis.....	(1)	1	.....
Montclair.....	0	1	.....	Nashville.....	3	1	.....
Newark.....	1		1	Texas:			
Trenton.....	(1)	1	1	El Paso.....	(1)		1
New Mexico:				Utah:			
Albuquerque.....	0	1	.....	Salt Lake City.....	1	2	1
New York:				Washington:			
Albany.....	4	2	.....	Spokane.....	0	1	.....
Dunkirk.....	0	1	1	Yakima.....	0	1	.....
Jamestown.....	1	2	.....	West Virginia:			
Middletown.....	0	1	.....	Bluefield.....	2	2	.....
New York.....	23	22	2	Charleston.....	2	1	.....
North Tonawanda.....	0	1	.....	Wisconsin:			
Rochester.....	1	2	.....	Marinette.....	(1)	1	.....
Rome.....	0	1	.....	Milwaukee.....	(1)	1	.....
Schenectady.....	(1)	1	.....	Racine.....	0	1	.....
Syracuse.....	1	2	.....	Sheboygan.....		1	.....

<sup>1</sup> Average less than 1.

December 24, 1920.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City Reports for Week Ended Dec. 4, 1920.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Adams, Mass.	14,406	1			4				1	1
Akron, Ohio	93,604	6	6	2			8		11	
Alameda, Calif.	28,433	6	4				1			
Albany, N. Y.	105,632	1	1		14		6		7	
Albuquerque, N. Mex.	14,509	11	3		5				6	8
Alexandria, La.	16,232	4								
Alexandria, Va.	17,959	3	1							
Allentown, Pa.	65,109		16		44		5		1	
Alliance, Ohio	19,581	2	1				9			1
Alton, Ill.	25,783	4	2				3			
Altoona, Pa.	59,712		3							
Amesbury, Mass.	10,200	2	1							
Anaconda, Mont.	10,631	2	1		2		4		1	1
Ann Arbor, Mich.	15,041	5	4							
Appleton, Wis.	18,005									
Arlington, Mass.	13,073	5								
Asbury Park, N. J.	14,629	1					1			
Ashtabula, Ohio	22,008	6								
Atchison, Kans.	16,785		6							
Atlanta, Ga.	196,144	70	8	2	4		6	1		4
Atlantic City, N. J.	53,515	10	2							
Attleboro, Mass.	19,776	4	1							2
Auburn, Me.	16,607	4			9					
Baltimore, Md.	594,637	215	52	3	12		20		33	16
Bangor, Me.	26,958		1		4		2		1	
Barberton, Ohio	14,187	1	1							
Bayonne, N. J.	72,204		4		4		7		2	
Beacon, N. Y.	11,674	2								
Beatrice, Nebr.	10,437	2								
Beaumont, Tex.	28,851	18								
Beaver Falls, Pa.	13,749				2		23		2	
Bedford, Ind.	10,613	2					1		1	
Belleville, N. J.	12,797		1							
Bellingham, Wash.	34,362						4			
Beloit, Wis.	18,547	3	1							
Benton Harbor, Mich.	11,099	3					1			
Berlin, N. H.	13,892	5			6					
Bethlehem, Pa.	14,353		6				14			
Beverly, Mass.	22,128	3							2	
Biddeford, Me.	17,760		5		9					
Billings, Mont.	15,123	4			17		1			
Birmingham, Ala.	180,716	58	8				5		7	3
Bloomfield, N. J.	19,013	1	4				1			
Bloomington, Ill.	27,462	3	2		1		2		2	
Bloomington, Ind.	11,661	1					1			
Bluefield, W. Va.	16,123		2		1		1			
Boise, Idaho	35,951	4					2			
Boston, Mass.	767,813	207	51	7	22		19	2	61	18
Braddock, Pa.	22,040		7		1		1			
Bradford, Pa.	14,544				7		2			
Brazil, Ind.	10,472	2								
Bridgeport, Conn.	124,724	39	12	2	3		19		9	4
Bristol, Conn.	16,318		8	3					2	
Brookline, Mass.	33,526	4	1		1		2		2	
Brunswick, Ga.	10,984									
Buffalo, N. Y.	455,881	116	104	11	119		19		17	16
Burlington, Iowa	25,144						1			
Burlington, Vt.	21,802	7	1		5		3		2	1
Butler, Pa.	28,677		2				14			
Butte, Mont.	44,057	17			46				14	4
Cadillac, Mich.	10,158	1								
Cambridge, Mass.	114,293	26	3		2		11		5	
Canton, Ohio	62,566	8	8		2		11		4	
Cape Girardeau, Mo.	11,146	5	1				1			
Carbondale, Pa.	19,597		2		21		3			
Carlisle, Pa.	10,795		1							
Carnegie, Pa.	11,963						2			
Cedar Rapids, Iowa	38,033		1				2			
Centralia, Ill.	11,838	10								
Chambersburg, Pa.	12,475		4							
Charleston, S. C.	61,041		27							3
Charleston, W. Va.	31,060	7	6	1	19					1
Charlotte, N. C.	40,759	9	6		32					1

**DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—**  
Continued.

**City Reports for Week Ended Dec. 4, 1920—Continued.**

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Chelsea, Mass.	46,405	13	3		5		3		4	2
Chester, Pa.	41,857	2			1		2			
Chicago, Ill.	2,547,201	587	269	21	119	6	177	3	221	41
Chicopee, Mass.	29,950	7	3				1			1
Chillicothe, Ohio	15,625	2	1				2			
Cincinnati, Ohio	414,248	111	26	3			25	1	18	9
Cleveland, Ohio	692,239	54			22		89	4	12	17
Clinton, Mass.	13,075	2			58					
Coatesville, Pa.	14,998	3					16			
Coffeyville, Kans.	18,331	5	1							
Colorado Springs, Colo.	38,965	12			2		2		5	3
Columbia, S. C.	35,165	3			3					
Columbus, Ohio	220,135	71	22	1	1		7	1	4	5
Concord, N. H.	22,838	14	1	1	1				1	
Connellsburg, Pa.	15,876	5					1			
Corpus Christi, Tex.	10,789	3								
Council Bluffs, Iowa	31,838	10					5			
Covington, Ky.	59,623	17	3				5		1	3
Cranston, R. I.	25,773	3	3	1			1			
Crawfordsville, Ind.	11,443	1					2			
Cumberland, Md.	2,686	6	3						1	1
Dallas, Tex.	129,738	44	22		1		2		6	
Danvers, Mass.	10,037	6					1			
Danville, Va.	20,183						2			
Davenport, Iowa	49,618	2			2		2			
Dayton, Ohio	128,939	35	20		1		5		5	
Decatur, Ill.	41,483	9	18							1
Dedham, Mass.	10,618	2	2							
Denver, Colo.	268,439	73	17	2	62		4			16
Des Moines, Iowa	104,052	10	1	2			2			
Detroit, Mich.	619,648	227	119	12	15	1	79	5	33	23
Dover, N. H.	13,276	3			1					
Du Bois, Pa.	14,994	1					3		1	
Dubuque, Iowa	40,096	1					2			
Duluth, Minn.	97,077	19	5		1		3	1	1	1
Dunkirk, N. Y.	21,311	4	4		1		2	1	2	2
Durham, N. C.	23,160	10	2				1			
East Chicago, Ind.	30,286	15								1
Easthampton, Mass.	10,656	2	6	1				1	1	
Easton, Pa.	30,854	3					1			
East St. Louis, Ill.	77,312	15	6				2		2	1
Eau Claire, Wis.	18,887				2		4			
Elgin, Ill.	28,562	6	1		2					
Elizabeth, N. J.	88,830	17			1		4		2	2
Elkhart, Ind.	22,273	3	1				14			1
Elmira, N. Y.	38,272	9								
El Paso, Tex.	19,149	27	4	1	1		3			6
Elwood, Ind.	11,028	2							1	
Englewood, N. J.	12,603	2					1			
Erie, Pa.	76,592	59			11		23		5	
Eugene, Oreg.	14,357	4			2					
Eureka, Calif.	15,142	4					4			
Evanston, Ill.	29,304	11	25							
Evansville, Ind.	76,981	18	10				3			1
Everett, Mass.	40,160	4	1						3	
Everett, Wash.	37,205				1					
Fairmont, W. Va.	16,111	3							1	
Fall River, Mass.	129,828	40	10		16	1	7		5	1
Fargo, N. Dak.	17,872	4			1					
Farrell, Pa.	10,160		2				3			
Findlay, Ohio	14,858	3			2		1			
Flint, Mich.	57,380	13	12				14			
Fond du Lac, Wis.	21,486	6	10							
Fort Scott, Kans.	10,564	5	5							
Fort Smith, Ark.	29,390		3				3			
Fort Wayne, Ind.	78,014	13	4				4			
Fostoria, Ohio	10,959	2	4							
Framingham, Mass.	11,149	4								
Frankfort, Ind.	10,103	0								
Fremont, Nebr.	10,080	3								
Fremont, Ohio	11,034	4					1			

<sup>1</sup> Population Apr. 15, 1910.

December 24, 1920.

**DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.**

**City Reports for Week Ended Dec. 4, 1920—Continued.**

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Fresno, Calif.	36,314	6	5	1			2			2
Galesburg, Ill.	21,629	5	4	1						2
Galveston, Tex.	42,650	12	1				3		1	
Gardiner, Mass.	17,534	3							1	
Garfield, N. J.	15,109								1	
Gary, Ind.	50,000	11	8				1	1		
Geneva, N. Y.	13,915	3								
Glen Falls, N. Y.	17,160	9			2		1		11	
Gloucester City, N. J.	11,375		2						2	
Grand Forks, N. Dak.	16,342	0	5							
Grand Rapids, Mich.	152,861	27	23	1			6		11	
Granite City, Ill.	15,890	2	1							
Great Falls, Mont.	13,948	3								
Green Bay, Wis.	30,017	7	3	1	1		2			
Greenfield, Mass.	12,251	6					5			
Greensboro, N. C.	20,171	7								
Greensburg, Pa.	13,881		2							
Greenwich, Conn.	19,594	4	6							
Hackensack, N. J.	17,412	5	1						1	
Hamilton, Ohio.	41,338	8	2	2			9			
Hammond, Ind.	27,016	10	2	1			2			
Harrisburg, Pa.	73,276		12				3			
Harrison, N. J.	17,345		4	1					1	
Hartford, Conn.	112,851	50	11	2	1		5		4	3
Haverhill, Mass.	4,180	10	6		2		2		2	
Hazleton, Pa.	28,81		1							
Hibbing, Minn.	17,550	1	5		2					
Hoboken, N. J.	78,34	15	2		3		1		1	1
Holland, Mich.	13,459	3			1		1			
Holyoke, Mass.	66,503	18	1				2			
Hot Springs, Ark.	17,690	8	1				1			1
Huntington, Ind.	10,982	3	1		1		4			
Huntington, W. Va.	47,696	12					1			3
Hutchinson, Kans.	21,461		5		1		2			
Independence, Mo.	11,964	4								1
Indianapolis, Ind.	283,622	76	7	1	5		24		12	7
Iowa City, Iowa	11,626		1							
Ironton, Ohio.	14,079	2					6			2
Ironwood, Mich.	15,695	2			8					
Irvington, N. J.	16,710		2		1		4		1	
Ishpeming, Mich.	12,448	5	7	1			2		1	
Ithaca, N. Y.	16,017	7					1			
Jacksonville, Ill.	15,506	10	1						1	
Jamestown, N. Y.	37,431	16	16		1		1		4	
Janesville, Wis.	14,411	3	2				2			
Jefferson City, Mo.	13,712	4								2
Jersey City, N. J.	312,557		34		2		9		13	
Johnstown, Pa.	70,437		7		5				3	
Joplin, Mo.	33,400						3			
Kalamazoo, Mich.	50,498	18	6							
Kankakee, Ill.	14,270	4	1		6		1			
Kansas City, Kans.	102,096		24		1		9			
Kansas City, Mo.	305,816	113	42	2	8		26	1	4	5
Kearny, N. J.	24,325	3	10		1		8			1
Keene, N. H.	10,725		1							
Kenosha, Wis.	32,833	5	1							
Keokuk, Iowa.	114,008	2	2	5						
Kewanee, Ill.	13,607	11	1		4		5			1
Knoxville, Tenn.	59,112		8				5		2	2
Kokomo, Ind.	21,929	4								1
La Fayette, Ind.	21,481	3					1			
Lake Charles, La.	14,930	4								
Lancaster, Ohio.	16,086	1			1					
Lancaster, Pa.	51,437		12				1			
La Salle, Ill.	12,332	4								
Lawrence, Kans.	15,477	3	4						1	
Lawrence, Mass.	102,923	15	3		3		5		4	2
Leavenworth, Kans.	19,363	2	5				2		1	
Leominster, Mass.	21,365	7			1				2	1
Lewiston, Me.	28,061	7	3	1	20				5	

<sup>1</sup> Population Apr. 15, 1910.

**DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—**  
Continued.

**City Reports for Week Ended Dec. 4, 1920—Continued.**

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Lexington, Ky.	41,997	17					1			3
Lima, Ohio	37,145	8	2		1		32			
Lincoln, Nebr.	46,957	12	1		22		1			
Little Rock, Ark.	58,716	8					1		1	
Lockport, N. Y.	20,028	4					1		2	
Logansport, Ind.	21,338	8	1				1			
Long Beach, Calif.	29,163	17	3				1		1	
Lorsin, Ohio	38,266	3					2			
Los Angeles, Calif.	535,485	164	70	4	74		11		30	21
Louisville, Ky.	240,808	62	25	2			14		11	2
Lowell, Mass.	114,366	29	7		39		2		6	2
Lynchburg, Va.	33,497	7	6				2		2	
Lynn, Mass.	104,534	25	10			1	2		3	1
McKeesport, Pa.	48,299	7	3				1		6	
Madison, Wis.	31,315	7	2				1		2	
Mahanoy City, Pa.	17,709	4	3		6					
Manchester, Conn.	15,859	12	14	2			1			
Manchester, N. H.	79,607	12								1
Manitowoc, Wis.	13,931									
Mankato, Minn.	10,365	4					1		1	
Mansfield, Ohio	25,051	7					5			
Marion, Ind.	19,923	2	3							
Marion, Ohio	24,129									2
Marquette, Mich.	12,555	5								
Marshalltown, Iowa	14,519		1				1			
Martinsburg, W. Va.	12,984		3							
Mason City, Iowa	14,938	4					4			
Meadville, Pa.	13,968						29			
Medford, Mass.	26,681	6	5		1		1			2
Melrose, Mass.	17,724	1	1							
Memphis, Tenn.	151,877	64	25		1		9		5	5
Meriden, Conn.	29,431	3	3	1			9		2	
Methuen, Mass.	14,320	2	1		8		1			
Middletown, N. Y.	15,890		4		67		3			
Middletown, Ohio	16,384	2	3				1			
Milwaukee, Wis.	445,008	83	100	3	9		36		19	5
Minneapolis, Minn.	373,448	79	25	1	2		42	1	19	8
Mishawaka, Ind.	17,083	4	1				3			
Missoula, Mont.	19,075	4								
Mobile, Ala.	59,291	17	2	1	1		2		1	2
Monmouth, Ill.	10,346	3								
Monessen, Pa.	23,070				3					
Monroe, La.	13,698	5	2						2	2
Montclair, N. J.	27,087	5	1		11		1			
Montgomery, Ala.	44,039	19	3				2			
Morgantown, W. Va.	14,444	3	1		14		1			
Morristown, N. J.	13,410	5					2			
Moundsville, W. Va.	11,515	1			1					
Mount Carmel, Pa.	20,709		3		1				3	
Mount Vernon, N. Y.	37,991	8	8		1				1	1
Muncie, Ind.	25,653	8	3				5			
Muscatine, Iowa	17,713	7								1
Muskegon, Mich.	27,434	6	8				8			
Muskogee, Okla.	47,173		5				3		1	
Nanticoke, Pa.	23,811		4		18					
Nashville, Tenn.	118,136	34	6		1		7		2	4
Newark, N. J.	418,789	101	39	5	11		30		29	10
Newark, Ohio	30,317	4					1			
New Bedford, Mass.	121,622	32	9	3			2		3	6
New Britain, Conn.	55,385	16	14		6		5			
Newburyport, Mass.	15,291	5								
New Castle, Pa.	41,915		3		3		3		8	
New Haven, Conn.	152,275	53	24				22		5	1
New London, Conn.	21,199	7					2			
New Orleans, La.	377,010	140	10		95		9		10	9
New Philadelphia, Ohio	10,133						1			
Newport, R. I.	20,585	4					3			
Newton, Mass.	44,345	14	3		70		6			
New York, N. Y.	5,737,452	1,280	373	30	55	4	214	9	261	100

<sup>1</sup> Population Apr. 15, 1910.

<sup>2</sup> Pulmonary tuberculosis only.

December 24, 1920.

**DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—**  
Continued.

**City Reports for Week Ended Dec. 4, 1920—Continued.**

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Niagara Falls, N. Y.	38,466	18	5	3	2		22		1	
Norfolk, Va.	91,148		4		3		1		3	
Norristown, Pa.	31,969		2				5		1	
North Adams, Mass.	122,019	7	1		5				2	1
Northampton, Mass.	20,006	1	1							1
North Attleboro, Mass.	11,248	8								
North Braddock, Pa.	15,684		5							
North Little Rock, Ark.	15,515	3					2			
North Tonawanda, N. Y.	14,060	4	2							
Norwalk, Conn.	27,332	4	4	1						
Norwich, Conn.	21,923	4	3							
Norwood, Ohio	23,239	3					1		1	
Oakland, Calif.	206,405	54	7		1		7		2	
Oak Park, Ill.	27,816	6	4				23			
Ogdensburg, N. Y.	16,845	4								
Oil City, Pa.	20,162		9		41		2		1	
Oklahoma City, Okla.	97,588	23	22							
Old Forge, Pa.	15,479		3				1			
Olean, N. Y.	16,927	5								
Omaha, Nebr.	177,777	37	15	3	1		2		2	3
Orange, N. J.	33,636	5	3						2	
Oshkosh, Wis.	36,549	5	1						2	1
Paducah, Ky.	25,178		4				2			
Parkersburg, W. Va.	21,059	9	3							
Parsons, Kans.	15,952		4							
Pasadena, Calif.	49,620	9	2				3		1	
Passaic, N. J.	74,478	16	6		11		9	1		
Paterson, N. J.	140,512		6				3		9	
Pawtucket, R. I.	60,666	25	1				1			
Peabody, Mass.	18,785	8	2							
Peekskill, N. Y.	19,034	4	2		3		1			
Pekin, Ill.	10,973						3			
Peoria, Ill.	72,184	21	7	1			11			
Perth Amboy, N. J.	42,046	13	7		3		5			
Petersburg, Va.	25,817	15	5				1			
Philadelphia, Pa.	1,733,514	497	95	16	11	1	148	3	4	4
Phillipsburg, N. J.	15,879	3						116	43	
Phoenixville, Pa.	11,871		3							
Pittsburgh, Pa.	586,196		49		27		73		13	
Pittsfield, Mass.	39,678	8			38				3	
Plainfield, N. J.	24,330	8	10	1			5		1	
Plattsburgh, N. Y.	13,111	4								
Plymouth, Mass.	11,001	0								
Pontiac, Mich.	18,006	17	2				25		3	1
Port Chester, N. Y.	16,727	1	1							
Port Huron, Mich.	118,863	7	1							
Portland, Me.	64,720	16	4		3	1	2			1
Portland, Oreg.	308,399	49	6	1	26		6		7	5
Pottstown, Pa.	16,987		2		1					
Pottsville, Pa.	22,717		5							
Poughkeepsie, N. Y.	30,786	10					1		1	1
Providence, R. I.	259,895	56	16	1	40		9			3
Pueblo, Colo.	56,084		8		2	1				
Quincy, Mass.	39,022	12	1				1		1	1
Racine, Wis.	47,465	20	16	1			9		1	
Rahway, N. J.	10,361	3	1							
Reading, Pa.	111,607		6		1		8		6	
Red Wing, Minn.	10,158		1							
Reno, Nev.	15,514	5								
Richmond, Ind.	25,080	5								
Richmond, Va.	158,702	65	23		1		6		9	8
Riverside, Calif.	20,496	10			1					
Roanoke, Va.	46,282	17	9		7				1	
Rochester, N. Y.	261,714	54	62	3	2		15	2	10	3
Rockford, Ill.	55,739	18					3			
Rock Island, Ill.	20,452	3			2					
Rocky Mount, N. C.	12,673	4								
Rome, Ga.	15,607		4		1					
Rome, N. Y.	24,259				18		1			

<sup>1</sup> Population Apr. 15, 1910.

**DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—**  
 Continued.

**City Reports for Week Ended Dec. 4, 1920—Continued.**

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Rutland, Vt.	15,038	7			1					1
Sacramento, Calif.	68,984	24	9	1			1		2	
Saint Charles, Mo.	10,498	6					2			
Saint Joseph, Mo.	86,498	30	6		1		9			1
Saint Louis, Mo.	768,630	189	184	6	4		37		44	15
Saint Paul, Minn.	232,463	51	40	1			16		16	2
Salem, Mass.	49,346	15	3						2	2
Salem, Oreg.	21,274	1							1	
Salina, Kans.	12,470	6	6				4			
Salt Lake City, Utah.	121,623	29	2		148	1	2			3
San Angelo, Tex.	10,321	10								
San Bernardino, Calif.	17,616	7							3	3
San Diego, Calif.	56,412	31	5		3				5	3
Sandusky, Ohio.	20,226	1							1	
Sanford, Me.	11,217	15							1	1
San Francisco, Calif.	471,023	127	25	5	3		12		24	13
Santa Barbara, Calif.	15,360	4								1
Santa Cruz, Calif.	15,150	8	4							
Saratoga Springs, N. Y.	13,839	3			1					
Sault Ste. Marie, Mich.	14,130	4			1		3	1		
Savannah, Ga.	60,250	40	5				4		2	3
Schenectady, N. Y.	103,774	18	9		8		4		5	4
Scranton, Pa.	149,541	10		1			8			
Seattle, Wash.	366,445	32					4			
Shamokin, Pa.	21,274	2					1		1	
Sharon, Pa.	19,156	3					7			
Sheboygan, Wis.	28,997	1								
Shenandoah, Pa.	29,753		1				1			
Sioux City, Iowa.	58,568				1		4			
Sioux Falls, S. Dak.	16,887	14	2				5			2
Somerville, Mass.	88,618	29	9	1	1		4		3	1
South Bend, Ind.	70,967	7	7	1			5			
Southbridge, Mass.	14,463	2		1						
Spokane, Wash.	157,656		13		4		1			
Springfield, Ill.	62,623	22	2		11		56			2
Springfield, Mass.	104,668	35	5	1	2		19	2	4	5
Springfield, Mo.	41,169	19								1
Springfield, Ohio.	52,296	15	1		4		4		1	1
Steubenville, Ohio.	25,259	4	4		1					
Stillwater, Minn.	10,198	2					2			
Sunbury, Pa.	16,651		2							
Superior, Wis.	47,167	4	3	1	2		1		1	
Syracuse, N. Y.	158,559	42	10	2	9		48		7	4
Tacoma, Wash.	117,446		3		6		2			
Taunton, Mass.	36,610	9	1		7		5		3	
Terre Haute, Ind.	67,361	26	5		1		8			1
Tiffin, Ohio.	12,932	4								1
Toledo, Ohio.	25,210	61	42	4	3		13		8	7
Topeka, Kans.	49,538	18	3		165		15		2	
Traverse City, Mich.	14,090	3	1				3			
Trenton, N. J.	113,974	21	2		2		1		2	1
Troy, N. Y.	78,94	28			60	1	5		5	
Tucson, Ariz.	17,324	15								6
Tulsa, Okla.	32,57		11							
Uniontown, Pa.	21,600									
Vancouver, Wash.	13,805		1				2			
Waco, Tex.	34,015	7								
Walla Walla, Wash.	26,067		1							
Waltham, Mass.	31,511	7	2		7					
Warren, Pa.	15,083				2		1			
Washington, D. C.	309,282	125	13	2	13		18		18	10
Washington, Pa.	22,76		3		42		1			
Waterbury, Conn.	89,231	39	4		1		3		3	2
Watertown, N. Y.	30,404						3		1	
Waterville, Me.	12,933		3							
Wausau, Wis.	19,666	4								
Webster, Mass.	13,484	1							2	
Westfield, Mass.	18,769	4								1
West Hoboken, N. J.	41,386	4	2							

<sup>1</sup> Population Apr. 15, 1910.

December 24, 1920.

**DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.**

**City Reports for Week Ended Dec. 4, 1920—Continued.**

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths. <sup>1</sup>	Cases.	Deaths. <sup>1</sup>	Cases.	Deaths. <sup>1</sup>	Cases.	Deaths. <sup>1</sup>
West New York, N. J.....	19,613	3	5	—	—	—	1	—	—	—
West Orange, N. J.....	13,964	1	1	—	—	—	2	—	—	—
Wheeling, W. Va.....	43,657	10	16	1	2	—	—	—	—	1
White Plains, N. Y.....	23,331	1	2	—	—	—	1	—	—	—
Wichita, Kans.....	73,597	22	17	—	—	—	15	—	—	—
Wilkes-Barre, Pa.....	78,334	—	18	—	51	—	20	—	1	—
Wilkinsburg, Pa.....	23,899	—	2	—	1	—	4	—	—	—
Williamsport, Pa.....	31,123	—	8	—	—	—	12	—	1	—
Wilmington, Del.....	95,369	30	6	—	—	—	3	1	—	3
Winona, Minn.....	118,583	—	—	—	—	—	8	—	—	—
Winston-Salem, N. C.....	33,136	20	1	—	—	—	—	—	8	3
Winthrop, Mass.....	13,105	1	1	—	1	—	—	—	—	—
Woburn, Mass.....	16,076	6	—	—	—	—	—	—	—	—
Worcester, Mass.....	166,106	45	5	—	—	—	13	—	8	2
Yakima, Wash.....	22,058	—	—	—	1	—	1	—	—	—
Yonkers, N. Y.....	103,066	20	4	—	—	2	—	—	7	3
York, Pa.....	52,770	—	7	—	—	1	—	—	—	—
Youngstown, Ohio.....	112,282	—	4	—	3	—	12	1	3	3
Zanesville, Ohio.....	31,320	6	2	—	—	—	1	—	—	—

<sup>1</sup> Population Apr. 15, 1910.

## FOREIGN AND INSULAR.

### CUBA.

#### Quarantine Against Arrivals from Mexico Modified.

Quarantine restrictions on account of plague, previously in force at ports in Cuba against vessels arriving from Mexico, were modified by order of the Cuban quarantine service December 8, 1920.

### JAMAICA.

#### Infectious Disease Reported Present.<sup>1</sup>

Alastrim or Kaffir pox has been reported in the island of Jamaica as follows: Week ended November 13, 1920, 330 cases; week ended November 20, 1920, 294 cases.

### POLAND.

#### Cholera—Sanitary Measures Against Spread.

Under date of October 23, 1920, sanitary measures were ordered to be enforced in eastern Poland to prevent importation of the cholera infection present on the eastern frontier to other portions of the country. A sanitary cordon with quarantine stations was ordered to be established and all persons entering Poland from the infected regions, with the exception of Government officials and persons engaged in urgent public business, were required to pass through this sanitary cordon. The persons exempted from these requirements were required to undergo five days' observation at their place of destination.

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

### Reports Received During Week Ended Dec. 24, 1920.<sup>2</sup>

#### CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Hongkong.....	Oct. 31-Nov. 6....	2	2	
Nanking.....	Oct. 24-30.....		2	Several cases.
Tientsin.....	Oct. 3-9.....	15		
Tsinanfu.....	Oct. 24-30.....	5		
Chosen (Korea).....				Nov. 12-18, 1920: Cases, 42; deaths, 41.
Japan:				
Taiwan Island.....	Nov. 4-10.....	100	72	

<sup>1</sup> Public Health Reports, Sept. 3, 1920, p. 2132; Sept. 24, 1920, p. 2298; Oct. 15, 1920, p. 2491; Oct. 29, 1920, p. 2663; Nov. 19, 1920, p. 2814; Dec. 3, 1920, p. 2943; Dec. 10, 1920, p. 2994.

<sup>2</sup> From medical officers of the Public Health Service, American consuls, and other sources.

December 24, 1920.

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.****Reports Received During Week Ended Dec. 24, 1920—Continued.****CHOLERA—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Java:				
West Java.....				Oct. 8-14, 1920: Cases, 4; deaths, 1.
Batavia.....	Oct. 8-14.....	1		Nov. 24, 1920: Cholera reported in Posen. Nov. 29: At Warsaw, about 50 cases, estimated.
Poland.....				
Siam:				
Bangkok.....	Sept. 26-Oct. 9....	5		

**PLAQUE.**

Azores:				
St. Michaels.....	Nov. 20-26.....	9	2	
Brazil:				
Bahia.....	Oct. 24-30.....	1	1	
Porto Alegre.....	do.....	1		
British East Africa:				
Kisumu.....	Oct. 17-30.....	3	2	
Mombasa.....	Sept. 27-Oct. 30...	50	40	
Nairobi.....	Oct. 17-23.....	2	2	
Chile:				
Antofagasta.....	Oct. 25-Nov. 21...	5	1	Nov. 15-21, 1920: Cases, 2; deaths, 1.
Egypt:				Nov. 12-18, 1920: Cases, 447; deaths, 269.
Cities—				
Suez.....	Nov. 12-16.....	3		
Provinces—				
Gharbieh.....	Nov. 12.....		1	
India:				
Bombay.....	Oct. 17-23.....	1	1	Oct. 10-23, 1920: Cases, 5,109; deaths, 3,824.
Rangoon.....	Oct. 25-30.....	4	2	

**SMALLPOX.**

Brazil:				
Rio de Janeiro.....	Aug. 29-Sept. 25...	42	13	
Sao Paulo.....	Sept. 6-Oct. 17.....		4	
Canada:				
New Brunswick—				
Counties—				
Gloucester.....	Oct. 10-Nov. 27.....	3		
Madawaska.....	Nov. 28-Dec. 4.....	1		
Northumberland.....	do.....	1		
Nova Scotia—				
Sydney.....	Nov. 20-27.....	1		
Ontario—				
Hamilton.....	Dec. 5-11.....	3		
North Bay.....	Nov. 7-29.....	6		
Toronto.....	Nov. 28-Dec. 11.....	9		In district, at Sturgeon's Falls, C. P. R. R., Dec. 8, about 50 cases. In other localities in district.
Ceylon:				
Colombo.....	Oct. 24-30.....	5		
China:				
Amoy.....	Oct. 25-30.....		1	Oct. 1-31, 1920: Present.
Canton.....				Present.
Chungking.....	Oct. 18-Nov. 6.....			
Dairen.....	Oct. 26-Nov. 1.....	1	1	Do.
Foochow.....	Oct. 17-Nov. 6.....			Do.
Mukden.....	Oct. 24-30.....			Do.
Nanking.....	Oct. 24-Nov. 13.....			Do.
Tsinanfu.....	Oct. 24-30.....	13		
Colombia:				
Santa Marta.....	Nov. 11-Dec. 4.....			Do.
Cuba:				
Antilla.....	Nov. 23-29.....	1		
Egypt:				
Cairo.....	Sept. 17-23.....	1	1	
Great Britain:				
Glasgow.....	Nov. 14-27.....	6	1	

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.****Reports Received During Week Ended Dec. 24, 1920—Continued.****SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Ecuador: Guayaquil.....				In late October and early November, 1920, 17 cases.
India: Madras.....	Oct. 31-Nov. 6....	5	4	
Java: West Java.....	Oct. 1-7.....	3		Oct. 1-7, 1920: Cases, 12; deaths, 7.
Malta.....	Oct. 16-31.....	1		
Portugal: Lisbon.....	Oct. 31-Nov. 6....		7	
Oporto.....	Nov. 14-29.....	1		
Portuguese East Africa: Lourenco Marques.....	Oct. 3-9.....	1		In interior of province, present.
Russia: Riga.....	Oct. 23-31.....	1		
Vladivostok.....	Sept. 1-30.....		1	
Spain: Corunna.....	Nov. 14-20.....		1	
Valencia.....	do.....	3		
Sweden: Goteborg.....	do.....		6	
Syria: Aleppo.....	Nov. 6-13.....			Present.
Tunis: Tunis.....	Nov. 15-21.....	1		
Union of South Africa: East London.....	Oct. 3-9.....	1		

**TYPHUS FEVER.**

Belgium: Ghent.....	Nov. 7-13.....		1	
Chile: Concepcion.....	Oct. 20-26.....		11	
China: Antung.....	Nov. 1-14.....	10	2	July 25-Aug. 1, 1920: Cases, 2.
Egypt: Alexandria.....	Nov. 12-18.....	4		
Cairo.....	Sept. 17-23.....	9	8	
Great Britain: Dublin.....	Nov. 14-27.....	3	2	
Greece: Saloniki.....	Oct. 11-17.....	1		
Italy: Trieste.....	Nov. 7-13.....	17	2	
Japan: Nagasaki.....	Nov. 8-14.....	1	2	
Jugo-Slavia: Do.....				June 13-26, 1920: Cases, 262. June 27-July 24, 1920: Cases, 286.
Portugal: Oporto.....	Nov. 11-20.....	2	1	
Tunis: Tunis.....	June 25-July 25....	18	7	
Turkey: Constantinople.....	Nov. 7-13.....	3		

**YELLOW FEVER.**

Mexico: Cristobal.....	Nov. 17-23.....	1		State of Vera Cruz.
Papantla.....	do.....	3	2	Do.
Tuxpan.....	do.....	18	18	
Vera Cruz.....	Nov. 23-Dec. 12...	5	4	Do.

December 24, 1920.

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 26 to Dec. 17, 1920.**

**CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Rio de Janeiro.....	June 27-July 3.....		1	
China:				
Amoy.....	June 20-Aug. 14.....		12	
Antung.....	Aug. 9-31.....	2	1	
Canton.....	July 1-Aug. 31.....	5	4	
Changsha.....	Aug. 22-Oct. 16.....	138	51	
Chungking.....	May 16-24.....		1,319	
Do.....	June 6-Sept. 11.....		5,322	
Dai'en.....	Sept. 29.....	4	1	
Foochow.....	July 11-24.....			Present and in vicinity.
Hankow.....	July 4-17.....	12	5	
Harbin.....				
Hongkong.....	Aug. 8-11.....	1	1	
Nanking.....	Sept. 12-25.....		4	Several cases reported at Nanking University, Aug. 30. Reported prevalent among Chinese, Aug. 30.
Shanghai.....	Aug. 2-29.....	1	6	Year 1919: Cases, 603. On Eastern Chinese R. R. line. At other stations, same line, 190 cases.
Tientsin.....	Oct. 3-9.....	15		Aug. 1-Oct. 7, 1920: Cases, 24,535 deaths, 12,519.
Chosen (Korea):				Nov. 5-11, 1920: Cases, 71; deaths, 43.
Chemulpo.....	Aug. 1-Oct. 7.....	24	21	
Chinampo.....	Aug. 1-26.....	34	23	
Fusan.....	Aug. 1-Oct. 28.....	684	517	
Gensan.....	Aug. 27-Sept. 2.....	1		
Mokpo.....	Aug. 1-Sept. 30.....	28	18	
Seoul.....	Aug. 1-Nov. 4.....	2,032	861	
Galicia:				
Buczacz.....	Oct. 18.....			Present.
Greece:				
Patras.....	July 26-Aug. 1.....			Present in surrounding country.
Zante.....	Aug. 2-8.....			Present.
India:				
Bombay.....	May 2-June 26.....	85	36	Apr. 11-May 22, 1920: Deaths, 7,549. May 30-June 26, 1920: Deaths, 3,710. June 27-July 10, 1920: Deaths, 1,711. July 25-Aug. 7, 1920: Deaths, 2,687. Aug. 21-Sept. 11, 1920: Deaths, 7,893.
Do.....	June 27-Oct. 9.....	106	69	
Calcutta.....	May 2-June 24.....	439	423	
Do.....	July 18-Oct. 16.....	214	205	
Madras.....	May 2-June 26.....	20	13	
Do.....	July 11-Oct. 30.....	16	3	
Rangoon.....	June 27-Oct. 16.....	23	17	
Indo-China:				
Saigon.....	Apr. 26-June 13.....	13	94	1920: Jan.—Cases, 40; deaths, 24. Feb.—Cases, 25; deaths, 15. Mar.—Cases, 52; deaths, 30. Apr.—Cases, 204; deaths, 99. May—Cases, 328; deaths, 184. June—Cases, 292; deaths, 201.
Do.....	July 26-Sept. 5.....	9	5	Kobe, June 6-13, 34 cases. Moji, June 6-12, 10 cases. Kochi, June 6-12, 1 case. Hiroshima, June 6-12, 6 cases.
Japan:				
Kobe.....	June 14-27.....	36	24	
Do.....	June 28-Oct. 17.....	409	223	
Nagasaki.....	June 21-27.....	7		
Do.....	June 28-July 18.....	34	13	
Osaka.....	June 8.....			Present.
Taiwan Island.....	May 22-June 30.....	66	38	
Do.....	July 11-Oct. 31.....	1,943	912	
Java:				
West Java—				
Batavia.....	Apr. 30-June 3.....	6	2	June 4-17: Present.
Do.....	June 25-Aug. 12.....	3		
Philippine Islands:				
Manila.....	May 9-June 26.....	5	1	May 9-June 26, 1920: Cases, 16; deaths, 12. June 27-July 17, 1920: Cases, 63; deaths, 31. July 25-31: Cases, 57; deaths, 48.
Provinces—				
Albay.....	May 9-15.....	2	1	
Batangas.....	June 27-July 3.....	1		
Bohol.....	do.....	1	1	
Cagayan.....	May 9-June 26.....	11	19	
Do.....	June 27-Oct. 2.....	55	23	
Cavite.....	Sept. 5-11.....	1	1	
Iloilo.....	June 27-July 17.....	3		
Isabela.....	July 11-Sept. 4.....	25	26	
Laguna.....	July 4-10.....	8		
Masbate.....	do.....	1	1	
Misamis.....	July 11-17.....	4	2	
Nueva Viscaya.....	July 25-31.....	49	42	
Pangasinan.....	July 4-Aug. 7.....	7	5	
Tarlac.....	Sept. 12-18.....	1	1	

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

Reports Received from June 26 to Dec. 17, 1920—Continued.

**CHOLERA—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Poland:				
Warsaw.....	Oct. 28.....	1	1	Case occurred in employee on river boat plying between Warsaw and Danzig.
Russia.....				Reported prevalent in southern Russia, June 4, 1920.
Grodo.....	Oct. 18.....			Present.
Sebastopol (district).....	June 20.....			Reported increasing.
Simferopol.....				Jan.-June, 1920: Cases, 1,262; deaths, 584. South Russia, Government of Tauride.
Vilna.....	Sept. 28.....	40		Oct. 18: Present.
Siam:				
Bankok.....	Apr. 25-June 26.....	512	343	
Do.....	June 26-Sept. 25.....	68	50	
Straits Settlements:				
Singapore.....	July 18-Oct. 2.....	26	21	
Sumatra:				
Medan.....	Aug. 20-Sept. 3.....	1	1	On local steamship. From Singapore.
Turkey:				
Amassia.....	Dec. 24.....	1		Asiatic Turkey.
Kaiseri.....	Dec. 22.....	1		Do.
Karsisi.....	Jan. 3.....	1		Do.
Mamuret-ul-Aziz.....	Dec. 31.....	1	1	Do.
Panderma.....	Dec.-Jan.....	16	6	
Rodosto.....	Dec. 29.....	1		European Turkey.
Smyrna.....	Dec. 22.....	3	2	Asiatic Turkey.
On vessel:				
S. S. Keketicent.....	Aug. 2.....	1		U. S. S.; At Shanghai.
Steamship (local).....	Aug. 20-Sept. 3.....	1	1	At Medan, island of Sumatra. From Singapore.

**PLAQUE.**

Algeria:				
Algiers.....				Sept. 1-Oct. 31, 1920: Cases, 4; deaths, 1.
Azores:				
St. Michaels.....	Oct. 4-20.....	35	12	Oct. 4, 1920: 5 suspect cases isolated vicinity of Ponta Delgada, Oct. 1-31, 1920: Cases, 76; deaths, 27. To Nov. 16: Cases, 110; deaths, 38. Nov. 6-19: Cases, 50; deaths, 14.
Do.....	Nov. 10-16.....	23	8	
Ponta Delgada.....	Oct. 1-23.....	2		
Brazil:				
Bahia.....	Apr. 25-May 22.....	10	10	
Do.....	June 27-Oct. 28.....	12	6	
Ceara.....	Sept. 5-25.....		4	
Pernambuco.....	May 3-9.....	1	1	
Do.....	June 28-Aug. 15.....	32	16	
Porto Alegre.....	June 27-Aug. 21.....		2	
British East Africa:				
Kisumu.....	Apr. 25-June 23.....	14	12	Apr. 1-30, 1920: Cases, 22; deaths, 9.
Do.....	July 11-Sept. 4.....	10	5	Present.
Mombasa.....	Apr. 25-June 23.....	104	39	
Do.....	June 27-Aug. 28.....	113	72	
Nairobi.....	Apr. 25-June 19.....	14	8	
Ceylon:				
Colombo.....	May 25-June 12.....	7	2	Mar. 1-May 31, 1920: Cases, 15; deaths, 2. Plague reported in Departments of Tacna and Tarata.
Do.....	June 27-Oct. 23.....	53	41	Mar. 1-May 31, 1920: Cases, 7; deaths, 1.
Chile:				
Antofagasta.....	May 17-June 20.....	5		
Do.....	July 5-Nov. 7.....	6		
Iquique.....	Mar. 1-May 31.....	8	1	
China:				
Amoy.....	June 20-Sept. 18.....		8	
Hongkong.....	Apr. 4-June 23.....	90	70	
Do.....	June 27-Oct. 23.....	29	23	

December 24, 1920.

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**
**Reports Received from June 26 to Dec. 17, 1920—Continued.**
**PLAQUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Ecuador:				
Guayaquil.....	Aug. 16-Sept. 30.....	9	1	Oct. 16-31, 1920: Cases, 3; deaths, 2.
Egypt.....				Jan. 1-Nov. 11, 1920: Cases, 44; deaths, 257.
Cities—				3 cases pneumonic.
Alexandria.....	June 18-Oct. 9.....	13	7	
Port Said.....	Aug. 2-Sept. 26.....	3		
Suez.....	May 13-June 8.....	12	6	
Do.....	July 3-Nov. 6.....	5	3	
Provinces—				
Assiout.....	May 15-June 5.....	7	4	
Do.....	July 2-Sept. 13.....	7	1	
Beni-Souef.....	July 7-10.....	2	1	
Fayoum.....	June 5.....	1		
Gharbieh.....	Do.....	1		
Do.....	July 1-Nov. 11.....	24	19	Pneumonic.
Girgeh.....	Sept. 22.....	1	1	
Keneh.....	May 18.....	1		
Mariut.....	May 18-June 8.....	19	22	
Do.....	July 3-9.....	1	2	
Minieh.....	May 15.....	2	1	Septicemic.
Do.....	July 13.....	1		
Fiume.....	Sept. 21.....	4	2	
Great Britain:				
Liverpool.....	June 20-26.....	1	1	
Greece:				
Athens.....	Aug. 19-Oct. 14.....	3	2	
Chios.....	Oct. 11.....	1		
Dante.....	July 22.....	2		
Kavalla.....	July 5-Oct. 3.....	4		
Nauplia.....	Aug. 21.....	2		
Piraeus.....	June 29-Sept. 20.....	12	1	
Saloniki.....	Sept. 25-Oct. 8.....	4		
India:				
Bombay.....	Apr. 18-June 26.....	170	135	Apr. 18-June 26, 1920: Cases, 12,476; deaths, 9,961. June 27-Oct. 16, 1920: Cases, 40,846; deaths, 28,391.
Do.....	June 27-Oct. 25.....	62	49	
Calcutta.....	May 2-June 12.....	26	19	
Karachi.....	May 9-Oct. 16.....	82	71	
Madras Presidency.....	May 9-Oct. 30.....	9,544	6,759	
Rangoon.....	Apr. 25-June 26.....	120		
Do.....	June 27-Oct. 16.....	264	231	
Indo-China:				
Saigon.....	May 19-June 13.....	9	2	Jan. 1-31, 1920: Cases, 42; deaths, 40. Feb. 1-29, 1920: Cases, 41; deaths, 36. Mar. 1-31, 1920: Cases, 79; deaths, 70. Apr. 1-30, 1920: Cases, 69; deaths, 63. May 1-31, 1920: Cases, 87; deaths, 75. June 1-30, 1920: Cases, 72; deaths, 63.
Do.....	July 26-Aug. 15.....	5	4	
Italy:				
Catania.....	June 22-July 3.....	3	2	
Java:				
East Java.....				Apr. 23-May 5, 1920: Cases, 7; deaths, 7. Apr. 15-June 16, 1920: Cases, 8; deaths, 8. Aug. 5-25, 1920: Cases, 4; deaths, 4.
West Java—				
Batavia.....	July 22-Sept. 23.....	16	16	Batavia Residency.
Mesopotamia:				
Bagdad.....	June 1-30.....	6	3	
Do.....	Sept. 1-30.....	1		
Mexico:				
Cerritos.....	Oct. 20-Nov. 10.....	31	17	State of San Luis Potosi. Present in vicinity.
Tampico.....	July 25-Sept. 27.....	4	3	May 29-July 14, 1920: Cases, 49; deaths, 29. Corrected statement: From outbreak in May to July 20, 1920—cases, 58; deaths, 36. Nov. 8-14, 1920: Two plague-infected rodents found.
Vera Cruz.....	June 1-20.....	11	1	
Do.....	July 18-24.....	2	2	
Peru:				
Callao.....	Mar. 1-Apr. 30.....	15	7	Mar. 1-31, 1920: Cases, 46; deaths, 29. Apr. 1-30, 1920: Cases, 36; deaths, 13. In coastal departments.
Do.....	Aug. 1-31.....	1		
Lima (city).....	Mar. 1-31.....	5	3	
Do.....	Apr. 1-30.....	4	4	
Lima (country).....	Mar. 1-31.....	1	1	
Do.....	Apr. 1-30.....	1		
Mollendo.....	Mar. 1-31.....	13	9	
Do.....	do.....	5	2	
Paita.....	Apr. 1-30.....	2		

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**
**Reports Received from June 26 to Dec. 17, 1920—Continued.**
**PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Peru—Continued.				
Salaverry.....	Mar. 1-31.....	4	3	
Do.....	Apr. 1-30.....	1		
San Pedro.....	do.....	6	1	
Trujillo—Salaverry.....	May 31-June 29.....	3	2	
Do.....	Aug. 30-Oct. 25.....	7	14	
Russia:				
Batum.....	Sept. 28.....			Prevalent.
Siam:				
Bangkok.....	Apr. 25-June 5.....	8	5	
Do.....	June 28-Aug. 28.....	6	3	
Straits Settlements:				
Singapore.....	Apr. 25-June 19.....	14	13	
Do.....	July 11-Aug. 7.....	3	3	May 16-22, 1920: Cases, 2; deaths, 3.
Syria:				
Beirut.....	June 30.....			Present.
Turkey:				
Constantinople.....	July 25-Aug. 21.....	7	6	
Uruguay:				
Montevideo.....	June 1-30.....	1	1	

**SMALLPOX.**

Algeria:				
Departments—				
Algiers.....	May 11-Aug. 31.....	51		
Constantine.....	June 1-Aug. 31.....	18		
Oran.....	May 11-Aug. 31.....	168		
Austria:				
Gratz.....	July 11-28.....	5		
Vienna.....	May 30-June 26.....	1		
Do.....	July 11-28.....	1		
Azores:				
Ponta Delgada.....	July 17-Aug. 20.....	7		
St. Michaels.....	Aug. 21-27.....	1		
Bolivia:				
La Paz.....	May 2-June 30.....	10	8	
Do.....	July 1-Sept. 30.....	18	8	
Brazil:				
Bahia.....	Apr. 25-June 26.....	5	5	
Do.....	June 27-Oct. 23.....	22	2	
Pernambuco.....	Mar. 29-June 27.....	114	3	
Do.....	June 30-Oct. 17.....	269	5	
Rio de Janeiro.....	Apr. 11-June 26.....	431	6	
Do.....	June 27-Aug. 18.....	92	22	
Santos.....	Mar. 24-28.....	1		
Do.....	July 25-Sept. 25.....		9	
Sao Paulo.....	June 21-27.....		1	
Do.....	June 27-Aug. 8.....		2	
British East Africa:				
Mombasa.....	May 2-22.....	2	1	
Do.....	July 11-17.....	3		
Nairobi.....	May 23-June 26.....	11	1	
Do.....	Aug. 1-21.....	5		
Bulgaria:				
Sofia.....	July 11-17.....	1		
Canada:				
Alberta—				
Calgary.....	June 3-9.....	1		
Do.....	July 4-Oct. 9.....	6		
British Columbia—				
Vancouver.....	May 16-Aug. 28.....	4		
Manitoba—				
Winnipeg.....	May 29-June 5.....	3		
Do.....	Aug. 8-21.....	2		
New Brunswick—				
Bonaventure and Gaspe Counties.....	Aug. 1-Oct. 31.....	2		
Carleton County.....	Sept. 19-25.....	1		
Gloucester County.....	May 31-June 26.....	5		
Do.....	Sept. 19-Oct. 9.....	3		
Madawaska County.....	Oct. 31-Nov. 6.....	1		
Queens County.....	July 4-Aug. 21.....	7		
Restigouche County.....	July 1-31.....	7		Sept. 26-Nov. 6, 1920: Cases, 4.
Campbellton.....				

December 24, 1920.

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**
**Reports Received from June 26 to Dec. 17, 1920—Continued.**  
**SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Canada—Continued.				
Nova Scotia—				
Halifax.....	do.	2		
Sydney.....	May 31-June 26.....	2		
Do.....	Nov. 7-20.....	3		
Ontario—				
Cornwall.....	June 25-30.....	2		
Fort William and Port Arthur.....	July 11-Oct. 2.....	4		
Hamilton.....	June 13-Dec. 4.....	18		
Kingston.....	May 31-June 19.....	4		
Do.....	Oct. 31-Nov. 27.....	18		
Montreal.....	Oct. 24-30.....	1		
North Bay.....	June 23-29.....	1		
Do.....	July 11-Oct. 23.....	8		
Ottawa.....	June 6-26.....	32		
Do.....	June 27-Dec. 4.....	307		
Peterborough.....	Apr. 18-July 31.....	33	1	
Prescott.....	July 11-17.....	1		
Do.....	Aug. 1-14.....			
Sault Ste. Marie.....	Oct. 24-30.....	1		
Toronto.....	June 6-19.....	13		
Do.....	June 26-Nov. 27.....	49		
Windsor.....	Aug. 22-Sept. 11.....	5		
Prince Edward Island—				
Charlottetown.....	Aug. 12-Oct. 13.....	2		
Quebec—				
Montreal.....	June 13-19.....	1		
Do.....	July 4-Aug. 7.....	4		
Quebec.....	June 27-Dec. 4.....	12		
Saskatchewan—				
Moose Jaw.....	June 26-30.....	6		
Do.....	July 25-Sept. 25.....	3		
Regina.....	June 2-30.....	1		
Do.....	Oct. 3-30.....	5		
Saskatoon.....	Sept. 5-Nov. 6.....	9		
Ceylon:				
Colombo.....	May 9-June 5.....	2		
Do.....	Aug. 29-Oct. 16.....	49	7	
Chile:				
Antofagasta.....	May 17-23.....			1 case in interior.
China:				
Amoy.....	May 2-Oct. 23.....	4	21	
Antung.....	May 9-June 13.....	3	3	
Do.....	June 21-27.....	1		
Canton.....	Sept. 1-30.....			Present.
Chungking.....	May 2-June 9.....			Do.
Do.....	July 11-Oct. 30.....			Do.
Dairen.....	Sept. 28-Oct. 4.....	1		Do.
Foochow.....	May 9-29.....			Do.
Do.....	July 26-Oct. 16.....			Do.
Hankow.....	June 20-26.....	2		
Harbin.....	Sept. 27-Oct. 31.....	2		
Hongkong.....	Apr. 4-June.....	19	15	Year 1919: Cases, 79. On Eastern Chinese R. R. line. At other stations, 169 cases.
Do.....	June 27-July 17.....	2	2	
Mukden.....	July 19-Oct. 9.....			Present.
Nanking.....	May 9-June 5.....			Do.
Do.....	July 4-Nov. 6.....			Do.
Pogonitchnaya.....	Ocf. 25-31.....	3		On Eastern Chinese Railway.
Tientsin.....	May 25-31.....	2		
Do.....	June 16-29.....	2		
Tsinanfu.....	May 9-15.....	1		
Chosen (Korea):				
Chemulpo.....	Mar. 1-June 30.....	60	40	
Do.....	July 1-31.....	18	8	
Fusan.....	Mar. 1-June 30.....	24	6	
Do.....	July 1-31.....	1	1	
Seoul.....	Mar. 1-June 30.....	238	86	
Do.....	July 1-31.....	15	6	
Colombia:				
Baranquilla.....	May 13-July 3.....			Epidemic.
Santa Marta.....	May 31-Nov. 13.....			Present.
Cuba:				
Antilla.....	Aug. 24-Nov. 15.....	5		
Habana.....	July 4.....	1		From steamship Frank Hennis, from Jamaica. Arrived Santiago June 30, 1920.
Matanzas.....	Aug. 15-21.....	1	1	In vicinity, at Aguaate, Aug. 1-7, 1920: Cases, 12.

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**
**Reports Received from June 26 to Dec. 17, 1920—Continued.**
**SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Cyprus.....				August, 1919: Cases, 242; deaths, 54.
Czechoslovakia.....				May 23-June 26, 1920: Cases, 345; deaths, 35.
Moravia.....	Feb. 1-2.....	68		
Danzig.....	June 29-July 17.....	9	2	
Ecuador:				
Guayaquil.....	Oct. 1-31.....	6	1	
Egypt:				
Alexandria.....	May 14-June 29.....	53	19	
Do.....	June 25-Nov. 4.....	14	4	
Cairo.....	Apr. 2-June 24.....	62	23	
Do.....	July 2-Aug. 19.....	5		
Port Said.....	Apr. 2-June 24.....	22	8	
Do.....	July 2-15.....	2	1	
France.....	May 15-31.....	1		
Brest.....	June 24-30.....		1	
Cette.....	do.....		1	
Nice.....	June 1-30.....		1	
Paris.....	May 1-10.....	3		
Rouen.....	Oct. 31-Nov. 6.....	1		
Germany.....	July 26-Sept. 4.....	1		
Berlin.....				
Great Britain:				
Edinburgh.....	Aug. 29-Sept. 4.....	7	1	
Glasgow.....	May 25-June 25.....	136	22	
Do.....	July 4-Nov. 13.....	184	51	
Liverpool.....	July 18-Sept. 11.....	2		
London.....	June 13-July 19.....	14		
Manchester.....	Aug. 22-28.....	5		
Greece:				
Saloniki.....	May 31-June 27.....	4	1	
Do.....	July 25-Aug. 15.....	1	1	
Haiti.....				
Jacmel.....	Nov. 6.....	1		
Port au Prince.....	Sept. 22-Nov. 7.....	50		
Honduras:				
San Pedro Sula.....	Sept. 5-11.....		1	
India.....				
Bombay.....	Apr. 26-June 26.....	103	45	
Do.....	June 27-Oct. 2.....	51	11	
Calcutta.....	May 2-June 12.....	101	93	
Do.....	July 18-Sept. 18.....	9	8	
Karachi.....	May 9-June 26.....	15	12	
Do.....	June 27-July 10.....	7	4	
Madras.....	May 9-June 26.....	27	15	
Do.....	June 27-Oct. 30.....	53	22	
Rangoon.....	Apr. 25-June 26.....	35	11	
Do.....	Aug. 8-Oct. 9.....	7	3	
Indo-China.....				
Saigon.....	May 10-June 13.....	12	3	
Do.....	Aug. 3-Sept. 5.....	1	1	
Italy:				
Catania.....	July 12-Oct. 31.....	27		
Genoa.....	May 17-23.....	12		
Do.....	June 14-27.....	20		
Do.....	June 28-July 4.....	3		
Messina.....	May 10-June 27.....	7	1	
Do.....	June 28-Oct. 3.....	14	3	
Milan.....	Mar. 1-May 31.....	3	5	
Naples.....	May 23-June 20.....	7	3	
Do.....	Oct. 18-Nov. 7.....	8	21	
Palermo.....	May 11-Oct. 28.....	402	128	
Trieste.....	Sept. 25-Oct. 2.....	16	5	
Turin.....	June 28-Sept. 12.....	2		

December 24, 1920.

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**
**Reports Received from June 26 to Dec. 17, 1920—Continued.**
**SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Japan:				
Kobe.....	May 9-June 27.....	10	5	
Do.....	June 28-July 18.....	7	2	
Taiwan Island.....	May 1-June 30.....	45	16	
Do.....	June 21-July 20.....	19	11	
Tokyo.....	Apr. 21-May 10.....	5	4	
Java:				
East Java— Surabaya.....	Sept. 5-11.....	1		
West Java— Batavia.....	Apr. 16-June 17.....	94	26	
Do.....	July 9-Sept. 30.....	15	7	
Jugo-Slavia.....				
Liberia:				
Monrovia.....	Nov. 30.....	34		
Madeira:				
Funchal.....	June 20-26.....		2	
Do.....	July 18-Nov. 6.....	1	5	
Malta.....	May 1-June 30.....		3	
Manchuria:				
Mukden.....	May 2-8.....			
Mesopotamia:				
Bagdad.....	July 1-31.....	1		
Mexico:				
Chihuahua.....	Nov. 8-28.....	1	4	
Ciudad Juarez.....	Aug. 2-8.....	1		
Guadalajara.....	May 1-31.....	1		
Do.....	July 1-Oct. 31.....	4	1	
Laredo.....	July 30.....	2		
Mazatlan.....	May 19-25.....		1	
Salina Cruz.....	June 1-30.....	5	3	
Do.....	Aug. 1-31.....	1	1	
San Luis Potosi.....	May 21-June 6.....		1	
Do.....	June 28-Nov. 6.....		13	
Tampico.....	July 1-31.....		5	
Newfoundland:				
Broad Cove.....	Sept. 4-10.....	1		
Ladie Cove.....	Sept. 11-17.....	6		
St. Johns.....	June 5-11.....	3		
Sheal Harbor.....	July 10-16.....	7		
New Zealand:				
Dunedin.....	Aug. 10-Sept. 20.....	15		
Persia:				
Teheran.....	June 6.....			Present.
Poland:				
Minsk District.....	Jan. 1-31.....	1,052	228	Jan. 1-31, 1920: Cases, 1,865; deaths, 301.
Porto Rico:				
Caguas.....	Aug. 9-15.....	1		
Portugal:				
Lisbon.....	May 16-June 28.....		8	
Do.....	June 27-Oct. 30.....		33	
Oporto.....	Oct. 31-Nov. 6.....	1		
Portuguese East Africa:				
Inhambane.....	Sept. 12-18.....	1		
Lourenco Marques.....	Sept. 12-25.....	6		
Russia:				
Riga.....	Aug. 1-Oct. 15.....	4		
Vladivostok.....	Jan. 1-June 30.....	252	78	May, 1920: Cases, 5. June, 1920: Cases, 7.
Do.....	July 1-31.....	2		
Sierra Leone:				
Baktau.....	Sept. 1-30.....	2		
Freetown.....	do.....	3		
Spain:				
Barcelona.....	May 19-June 12.....		4	
Do.....	June 18-Nov. 10.....		23	
Corunna.....	July 16-Oct. 2.....		2	
Gijon.....				
Madrid.....	Oct. 1-31.....	2		
Malaga.....				
Orense, Province.....	Sept. 6.....			
Valencia.....	May 23-June 26.....	15	3	
Do.....	July 4-Nov. 13.....	13	3	
Vigo.....	May 31-June 26.....		4	
Do.....	July 18-Nov. 16.....		11	
Straits Settlements:				
Singapore.....	May 16-22.....	1		Received out of date.
Sweden:				
Stockholm.....	Sept. 19-Oct. 9.....	4		

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**
**Reports Received from June 26 to Dec. 17, 1920—Continued.**
**SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Switzerland:				
Geneva.....	May 9-15.....	7		
Syria:				
Aleppo.....	Aug. 29-Sept. 4.....			
Tunis:				
Tunis.....	May 25-June 27.....	6	5	
Do.....	June 28-Nov. 14.....	13	23	
Turkey:				
Constantinople.....	May 16-June 19.....	7		
Do.....	June 20-Oct. 16.....	13		
Union of South Africa:				
East London.....	Sept. 19-25.....	1		
Johannesburg.....	May 1-31.....	23		
Do.....	July 1-Aug. 31.....	19		
On vessels:				
S. S. Bradford.....	Nov. 4.....	1		At Vancouver. From Talara, Peru, via ports in Chile, Mexico, and Peru. Left Talara about 21 days previous to arrival at Vancouver.
S. S. Henry R. Mallory.....	Oct. 2.....	1		At Habana from Spanish port. Vessel left Vigo, Spain, Sept. 19.

**TYPHUS FEVER.**

Algeria:				
Departments—				
Algiers.....	May 11-Aug. 31.....	44		
Constantine.....	May 21-Aug. 31.....	20		
Oran.....	May 11-Aug. 31.....	352		
Austria .....	Feb. 15-June 26.....	65		Feb. 15-June 26, 1920: Cases, 67.
Belgium:				
Ghent.....	Sept. 11-Oct. 23.....	10	1	
Bermuda:				
Hamilton.....	Oct. 18-23.....	2		
Bolivia:				
La Paz.....	May 2-June 30.....		17	
Do.....	July 1-Sept. 30.....	7	23	
Brazil:				
Ceara.....	Apr. 25-June 12.....		4	
Do.....	July 11-24.....		2	
Bulgaria:				
Sofia.....	June 20-25.....	2		
Chile.....				
Antofagasta.....	July 5-11.....			
Caleta Colosa.....	May 10-16.....		2	
Concepcion.....	Mar. 8-June 28.....	31	39	
Do.....	June 29-Sept. 20.....		13	
Coquimbo.....	Aug. 8-Oct. 7.....	1	1	Oct. 13: Cases, 34.
Santiago.....	Mar. 1-June 30.....	470	86	Sept. 10: Cases, 186.
Valparaiso.....	May 2-Oct. 23.....		32	
China:				
Antung.....	July 12-Oct. 24.....	73	11	Report week ended July 31, 1920, not received.
Eastern Chinese Railway .....	Aug. 9-Sept. 28.....	5		At stations on line.
Harbin.....				On Eastern Chinese Railroad line. Year 1919: Cases, 301.
Chosen (Korea):				At other stations on line, 789 cases.
Chemulpo.....	June 1-30.....	3		
Seoul.....	Mar. 1-Apr. 30.....	4	1	Feb. 1-28, 1920: Cases, 88; deaths, 7.
Czechoslovakia.....				
Leipnik.....	Feb. 22-28.....	1		Quarantine station.
Danzig.....	June 20-26.....	1		Feb. 27-Mar. 27, 1920: Cases, 16.
Do.....	July 25-31.....	1	1	
Egypt:				
Alexandria.....	May 7-June 24.....	338	86	
Do.....	June 25-28.....	145	63	
Cairo.....	Apr. 2-June 24.....	867	370	
Do.....	July 9-Sept. 16.....	136	96	
Port Said.....	Apr. 9-June 24.....	112	53	
Do.....	Aug. 20-26.....	1		

December 24, 1920.

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**
**Reports Received from June 26 to Dec. 17, 1920—Continued.**
**TYPHUS FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Germany				Feb. 22-Mar. 27, 1920: Cases, 23.
Great Britain:				Among troops, 4; among persons from Poland, 8. Mar. 28-June 26, 1920: Cases, 96. July 18-Sept. 28, 1920: Cases, 14. Additional cases, June 18-July 10, 1920, 16.
Belfast	Oct. 24-Nov. 6	4	2	
Dublin	May 23-June 19	3	1	
Do.	Oct. 16-Nov. 13	35	1	
Dundee	July 4-10	1		
Glasgow	May 30-June 5		1	
Queenstown	Aug. 1-7	1		
Greece:				
Athens	June 27-July 21		5	
Drama	July 12-18	1		
Patras	June 29-July 4		1	
Piraeus	June 29-July 5		1	
Saloniki	Apr. 12-27	384	42	
Do.	June 28-Oct. 10	133	57	
Guatemala:				
Guatemala City	Aug. 9-15		1	
Hungary:				Jan. 19-May 30, 1920: Cases 54.
Budapest	Jan. 10-June 20	28		
Italy:				
Catania	July 10-17	3		
Trieste	May 16-22	5		
Do.	June 13-Nov. 6	283	18	
Japan:				
Kobe	Aug. 17-23	7	*	
Nagasaki	May 25-June 27	2	1	
Do.	Sept. 13-Nov. 7	11	2	
Jugo-Slavia:				
Java:				Feb. 1-June 23, 1920: Cases, 691, deaths, 92.
East Java—Surabaya	June 10-16	1		
West Java—Batavia	May 28-June 30	5	1	
Mesopotamia:				
Bagdad	Aug. 1-31	1		
Mexico:				
Chihuahua	May 31-June 6		1	
Nogales	Aug. 9-14	2		Present.
San Luis Potosi	June 8-July 8			Sept. 19: Present. Nov. 14-20, 1920: Present.
Do.	July 2-Nov. 27	2	2	Jan. 1-Mar. 31, 1920: Cases, 87,910; deaths, 19,733.
Poland:				Jan. 1-Feb. 29, 1920: Cases, 911; deaths, 117.
Warsaw				Mar. 14-Apr. 10, 1920: Cases, 181; deaths, 23.
Serbia:				
Portugal:				
Oporto	Apr. 4-June 24	15	6	
Do.	Aug. 1-Nov. 6	10	2	
Russia:				
Riga	June 25-Oct. 23	125		
Siniferopol	Sept. 28	35		Jan. June, 1920: Cases, 3,955; deaths, 500.
Vilna	May 1-21	22	2	Jan. 1-Apr. 30, 1920: Cases, 1,264; deaths, 144.
Vladivostok	July 1-Aug. 31	36	4	
Do.				
Spain:				
Barcelona	July 9-15		1	
Madrid	June 1-30		1	
Switzerland:				
Geneva	June 28-July 4	1		
Tunis:				
Tunis	May 24-June 27	36	18	
Do.	July 6-Aug. 31	1	1	
Turkey:				
Constantinople	May 16-June 12	27		
Do.	June 19-Nov. 6	32	1	
Union of South Africa:				
Port Elizabeth	Sept. 27-Oct. 2	1		
Venezuela:				
Maracaibo	July 21-27		1	
On vessel:				
S. S. United States	Nov. 18	1		At Copenhagen, Denmark. Case found on clearance. Removed with contacts at Christiania, Norway. Vessel sailed Nov. 19 for New York.

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**
**Reports Received from June 26 to Dec. 17, 1920—Continued.**
**YELLOW FEVER.**

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Bahia.....	May 23-June 19...	1		
Colombia:				
Buenaventura.....	June 3.....	1	1	
Gustemala.....				
Los Amates.....	Aug. 5-Sept. 1...	10	3	Oct. 25, 1920: Present. Aug. 17: Present at several localities.
Quirigua.....	Aug. 9-15.....			Present.
Virginia.....	Sept. 10.....	1		Station on railway from Puerto Barrios to Guatemala City, 45 miles from Puerto Barrios.
Mexico:				
Culiacan.....	Oct. 16.....			Present.
Empalme.....	Oct. 12.....	1	1	
Guaymas.....	do.....		1	Previously reported, 2 deaths; later information shows 1 death.
Mazatlan.....	Oct. 13.....	1	1	
Progreso.....	July 30.....	1		
Do.....	Aug. 4-18.....	4	2	July 30-Aug. 18, 1920: Cases, 5; deaths, 3.
Puerto Mexico.....	Aug. 24-27.....	1	1	Case arrived Aug. 23, on S. S. Melchor Ocampo from Progreso.
San Blas.....	Sept. 13.....	1		Previously reported.
Tampico.....	Sept. 17.....	1		P. H. R., Sept. 10, 1920.
Do.....	Sept. 21-Nov. 4.....	3	2	Aug. 26-Oct. 27, 1920: Cases, 112; deaths, 59.
Tuxpan.....	Sept. 1.....			
Vera Cruz.....	June 22.....		2	
Do.....	July 19-Nov. 28.....	105	82	
Yucatan State—				
Campeche.....	Oct. 13.....	1	1	In sailor from S. S. Yumuri. The vessel left Vera Cruz Oct. 1 for Campeche and New Orleans. In interior.
Hocabá.....	Sept. 8.....	8		Do.
Hunucmá.....	Sept. 8-Oct. 11.....	2	1	From Hunucmá.
Izmal.....	Oct. 10-16.....			In interior.
Mérida.....	Nov. 5.....	1		
Sotuta.....	Sept. 8.....	1	1	Mar. 1-31, 1920: Cases, 228. Apr. 1-20, 1920: Cases, 64.
Peru:				At quarantine station. From S. S. Huallaga.
Callao.....	Apr. 1-30.....	1		
Catacaos.....	Mar. 1-31.....	11		
Do.....	Apr. 1-30.....	2		
La Huaca.....	Mar. 1-31.....	9		
Do.....	Apr. 1-30.....	5		
Morropón.....	do.....	37		
Munayilla.....	Mar. 1-31.....	12		
Paita.....	do.....	81		
Do.....	Apr. 1-30.....	14		
Piura.....	Mar. 1-31.....	1		
Do.....	Apr. 1-30.....	4		
Salitral.....	Mar. 1-31.....	2		
Sullana.....	do.....	9		
Do.....	Apr. 1-30.....	1		
Salvador.....				Sept. 12-19, 1920: 1 case, Aug. 22- Oct. 11, 1920: Cases, 3; deaths, 1. Fatal cases were in Europeans.
Armenia.....	June 20-26.....	1	1	
San Salvador.....	Aug. 1-21.....	6	2	
Sonsonate.....	May 22-June 24.....	49	17	
On vessels:				
S. S. Curacao.....	Nov. 16.....	1	1	At San Francisco, Calif. From Mexican ports, 6 days out from Mazatlan.
S. S. Haraldshaug.....	Sept. 28.....	1		At Pensacola, Fla. From Puerto Barrios, Tampico, and Vera Cruz.
S. S. Soestdijk.....	Sept. 11.....	1	1	At Quarantine, La.
S. S. Yumuri.....	Oct. 13.....	1	1	At Campeche. Vessel left Vera Cruz Oct. 1, 1920.